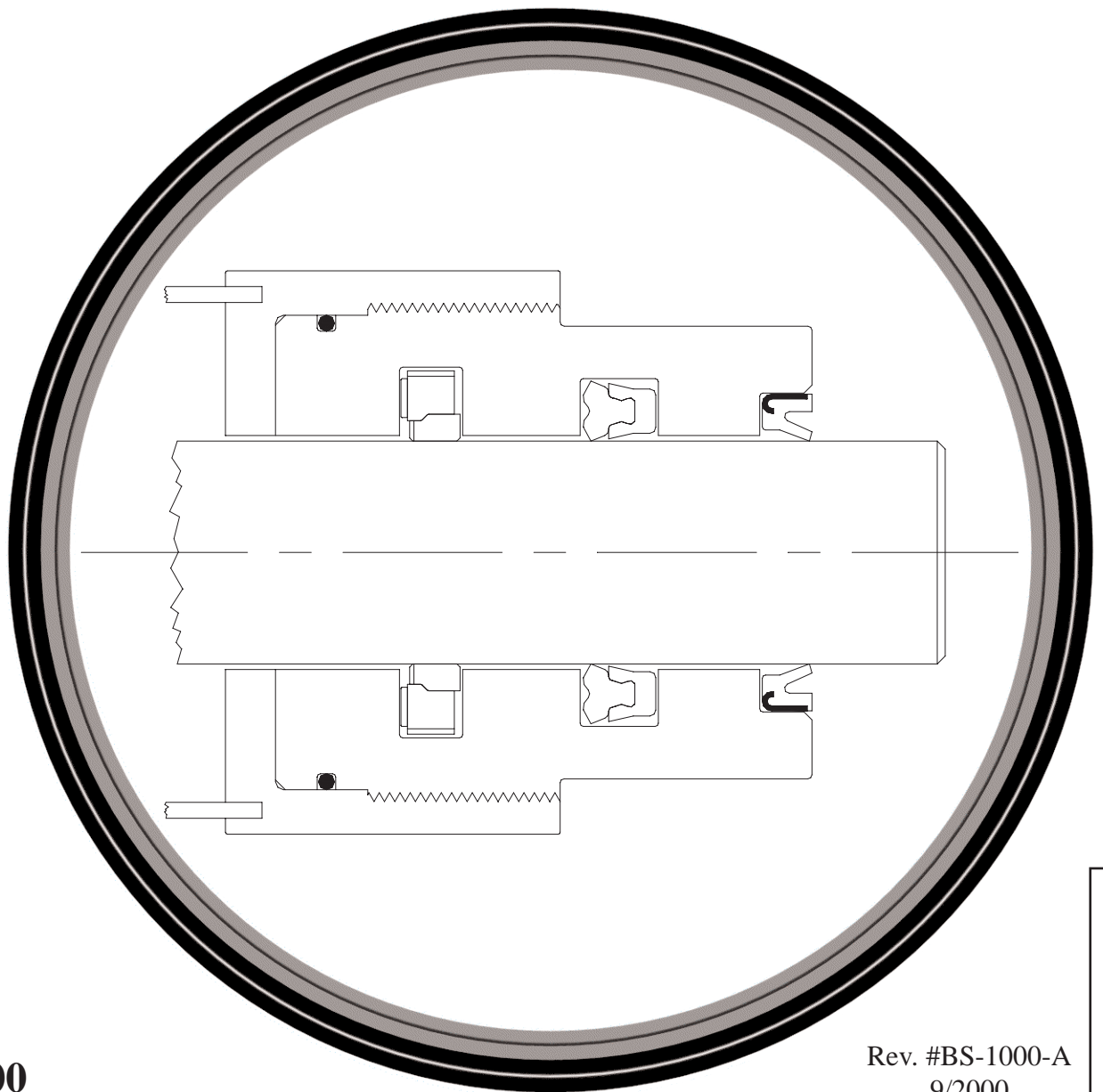




MACROTECH POLYSEAL, INC.

# *Buffer Seals*

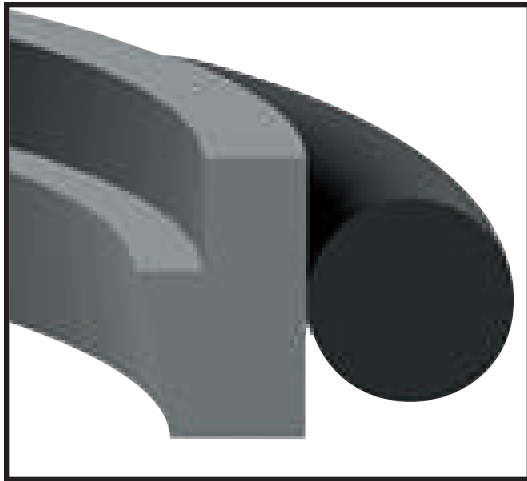
## *Type R, RB, RM, RS*



**BS-1000**

Rev. #BS-1000-A  
9/2000

**BS-1000**



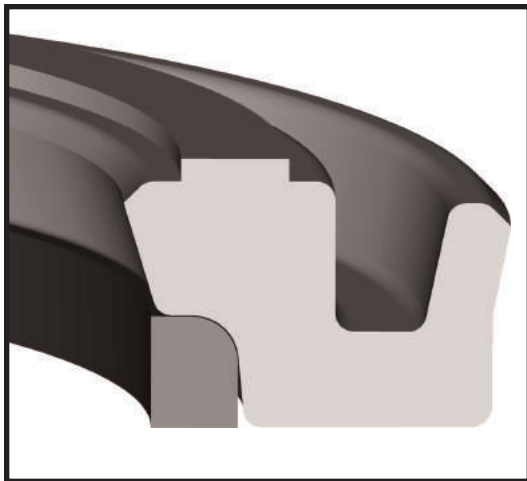
**R STYLE**

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



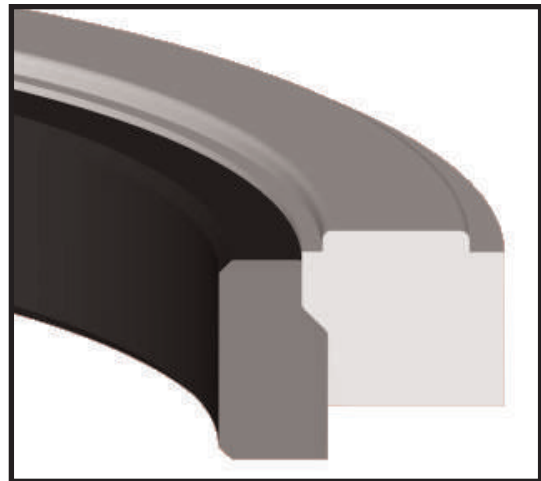
**RM STYLE**

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	-65 250	LUBRITHANE

# Recommended Sizes



## O-Ring for

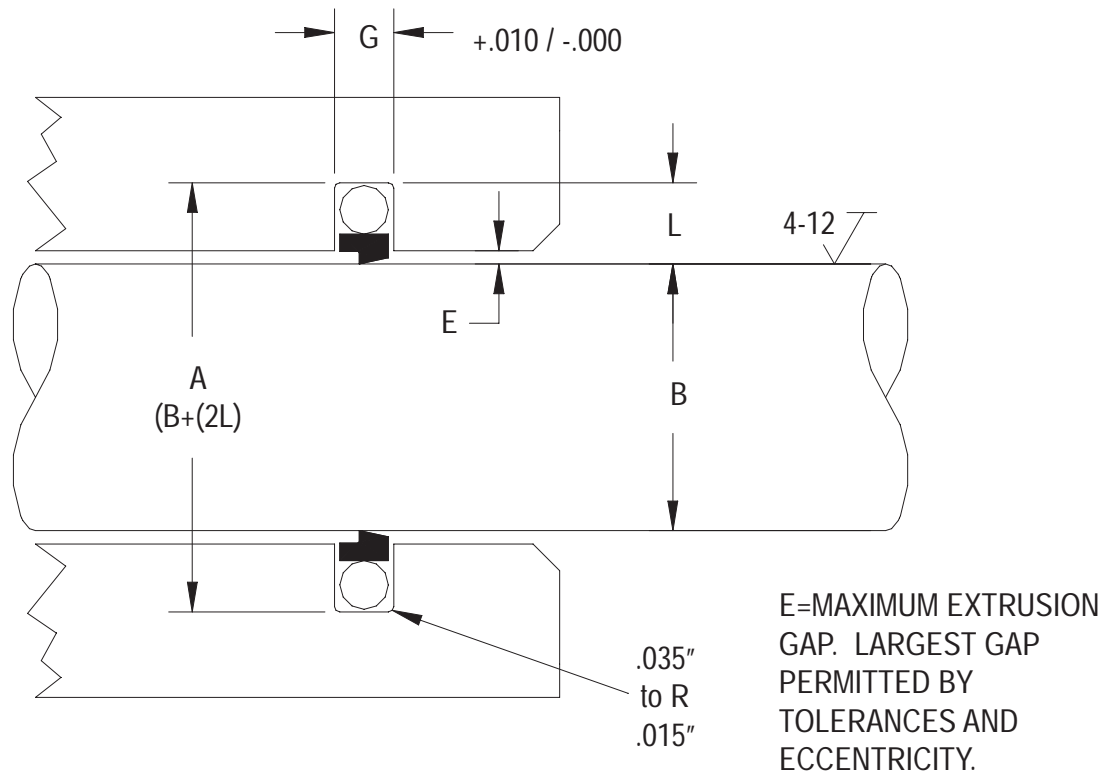
Rod Diameter	R-Style	R-Style	RM-Style	RB-Style	RS-Style
1.000	R101000	-122			
	R201000	-217	RM201000		
1.250	R101250	-126			
	R201250	-221	RM201250		
1.500	R101500	-130			
	R201500	-223	RM201500		
	R301500	-327	RM301500		
1.750	R201750	-225	RM201750		
	R301750	-329	RM301750		
2.000	R202000	-227	RM202000		
	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

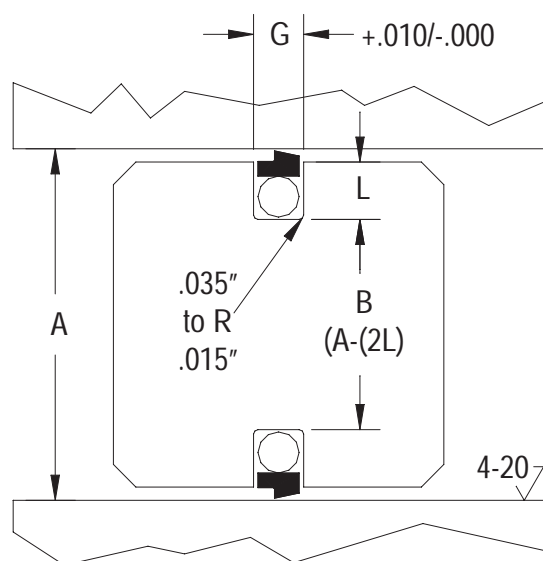
**(E) MAXIMUM DIAMETRICAL CLEARANCE FOR RS-STYLE**

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.	DESCRIPTION	COMP. NO.	DESCRIPTION
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

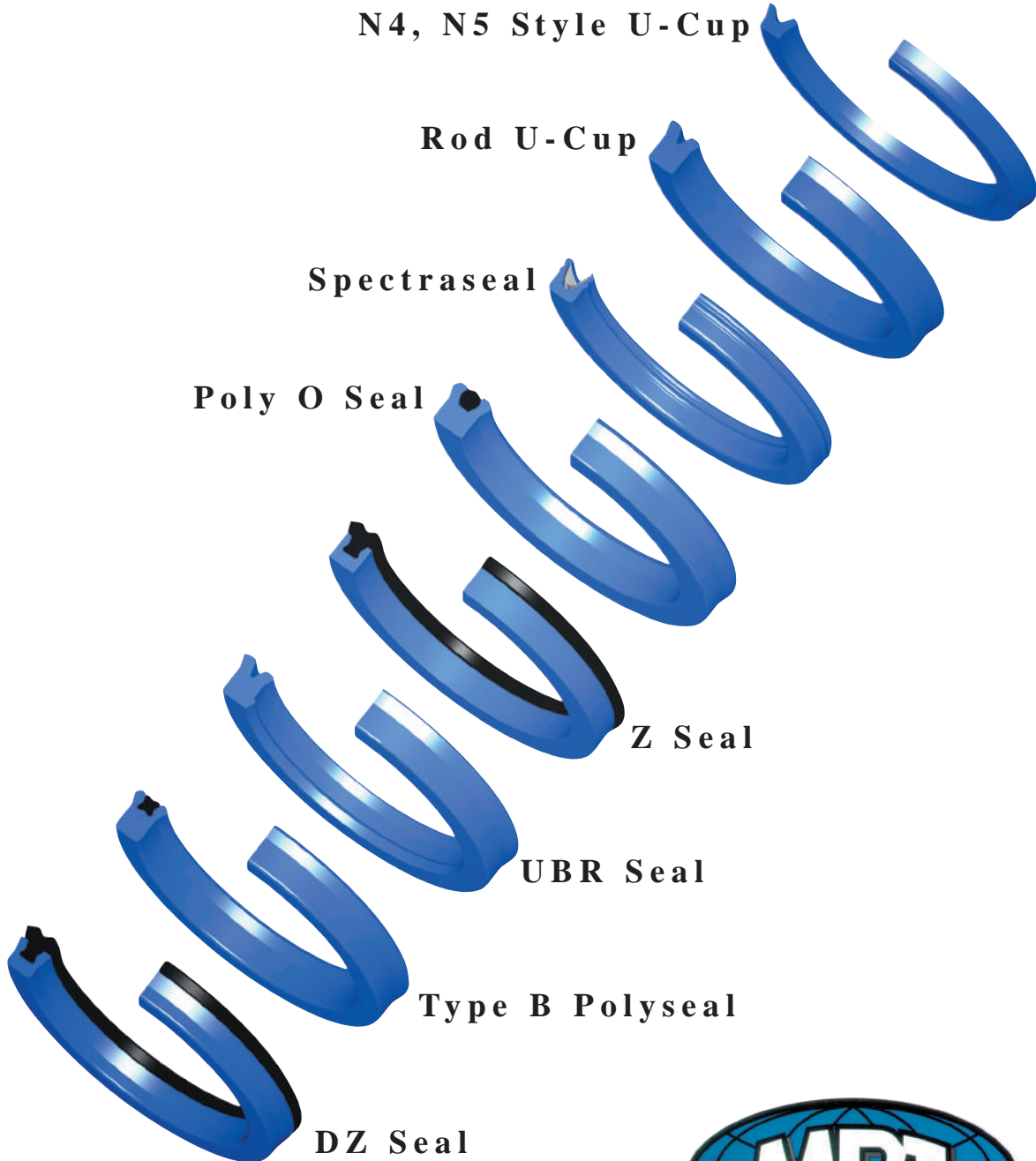
Poly O Seal

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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