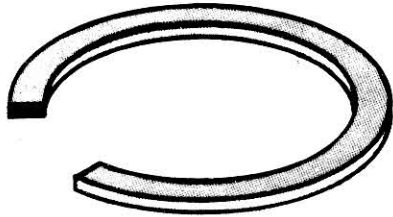


NORTH AMERICAN SEAL

& Packing Company

530 Van Ness Ave. Fresno, CA 93721
 (559) 264-7325 – Fax: (559) 268-5207



BACK UP RINGS

TYPE BU U
 STYLE 19 (INCH SIZES)

CHARACTERISTICS

North American Seal's Back Up Rings are used in conjunction with O-Rings for both static and dynamic sealing applications. They prevent extrusion of the O-Ring when it is subjected to high pressures, or when the extrusion gaps are excessive.

Wherever possible two Back Up Rings should be used, one on each side of the O-Ring.

All NAS Back Up Rings are continuous one piece rings, so they will not pinch O-Rings. The polyurethane material used, allows the rings to be stretched over pistons for easy installation.

TYPES AVAILABLE

- For general use (i.e. either for rod or piston): request Type BU U.
- For piston application (with interference fit on I.D.): request Type BU U / Style 19 PI.
- For rod applications (with interference fit on O.D.): request Type BU U / Style 19 RO.

MATERIAL

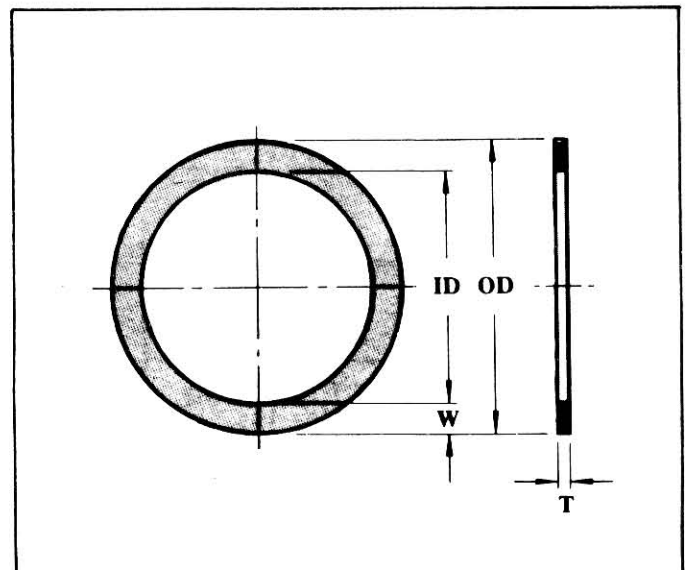
- TYPE: Unithane 395 A, Liquid Cast Polyurethane
- HARDNESS: Durometer 95 A
- FLUID COMPATIBILITY: See Material Specifications Technical Bulletin

ORDERING INFORMATION

Please review current price list for tooling availability before ordering. A nominal tooling charge may be required for some non-tooled sizes.

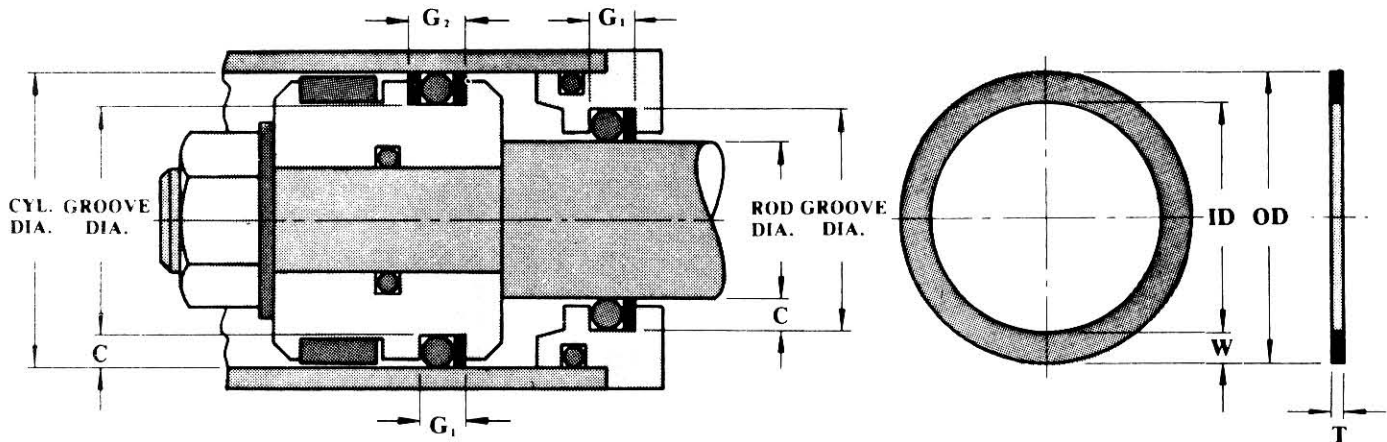
Add Prefix BU U to signify a Urethane Back Up Ring.

e.g. A Urethane Back Up Ring for an O-Ring size 334, is Part No: BU U 334

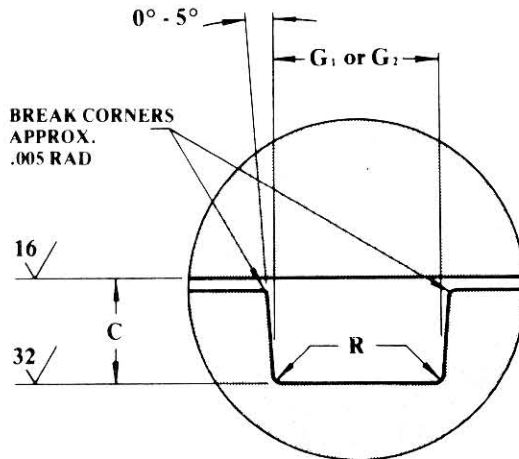


BACK UP RINGS

TYPE BU U STYLE 19 (INCH SIZES)



GROOVE DETAILS



G_1 = GROOVE WIDTH FOR ONE BACK UP WASHER

G_2 = GROOVE WIDTH FOR TWO BACK UP WASHERS

O RING		BACK UP WASHER			GROOVE DIMENSIONS				
NOMI- NAL CROSS SECTION	ACTUAL CROSS SECTION	PART NO. 19—	W	T*	G_1 ONE WASHER	G_2 TWO WASH- ERS	C		R
							RECIP- ROCATING	STATIC	
1/16	.070 ±.003	-013 TO -050	.053 ±.003	.040 ±.003	.130 TO .135	.190 TO .195	.055	.049	.005
							TO .057	TO .055	
3/32	.103 ±.003	-111 TO -178	.086 ±.003	.040 ±.003	.163 TO .168	.223 TO .228	.087	.080	.005
							TO .090	TO .086	
1/8	.139 ±.004	-205 TO -273	.118 ±.004	.040 ±.003	.209 TO .214	.279 TO .304	.119	.112	.005
							TO .123	TO .118	
3/16	.210 ±.005	-309 TO -375	.183 ±.005	.055 ±.004	.300 TO .305	.390 TO .395	.183	.176	.005
							TO .188	TO .184	
1/4	.275 ±.006	-425 TO -449	.236 ±.006	.085 ±.005	.400 TO .405	.525 TO .530	.234	.225	.005
							TO .240	TO .235	

*OTHER THICKNESSES AVAILABLE ON REQUEST