



O-Rings 5/32" Cross Section

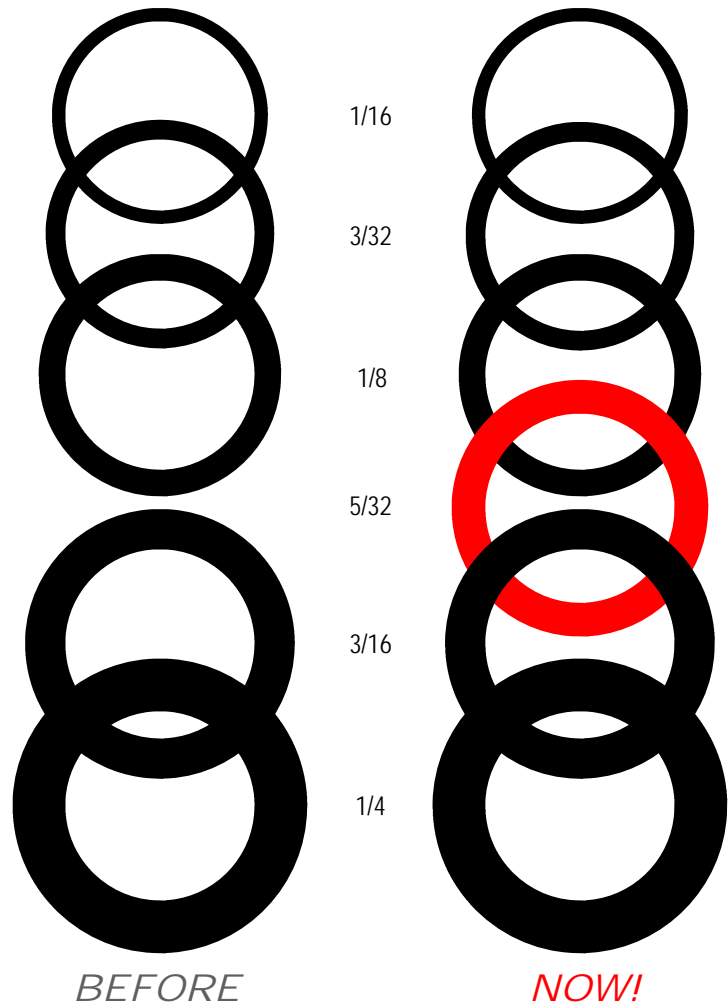


For some time AS-568 has been the standard used for choosing seals to build products using off-the-shelf materials. Standard O-Ring cross sections were developed for 1/16", 3/32", 1/8", 3/16", and 1/4". Unfortunately, when the standard was designed, a gap in nominal cross section was left between 1/8" and 3/16". Engineers desiring an O-Ring cross section larger than 1/8" have been forced to jump a full 1/16 of an inch, or try to find a non-standard solution.

Precision Associates, the company that first extended the AS-568 sizes to O-Rings smaller and larger than the standard, has now designed a series of 5/32" cross section seals to fill the gap left by AS-568. We've labeled these O-Rings our 5 series. Use the table below for seal gland design. See the reverse of this page for dimensional information on individual O-Rings.

O-RING CROSS SECTION	.176
PAI Size Number Range	1-514 thru 1-572
O-Ring ID Size Range	1" thru 4-7/8"
AXIAL	
Squeeze (min.)	.027
Gland Depth (max.)	.147 ± .003
Groove Width (wall to wall)	.235 ± .005
RADIAL	
Squeeze (min.) Per Side	.022
Gland Depth (max.)	.150 - .004
Groove Width (Wall to Wall)	.210 ± .005
DYNAMIC	
Squeeze (min.) Per Side	.015
Gland Depth (max.)	.156
Groove Width	
With Roll	.235 ± .005
No Roll	.210 ± .005
DIAMETRAL CLEARANCE*	
500 PSI	.013
1500 PSI	.007
R Radius (max.)	.040
Eccentricity (max.)	.004

*Diametral Clearance based on 70 Durometer Compound



The Gland dimensions provided are only intended to be a starting point for your design. We recommend that you test each application to meet your requirements.



O-Rings

5/32"

Cross Section



Mold IDen	Nominal Dimensions			Actual Dimensions		
	C/S	I.D	O.D	C/S	I.D	O.D
1-514	5/32	1	1 5/16	.176	.975	1.327
1-515	5/32	1 1/16	1 3/8	.176	1.038	1.390
1-516	5/32	1 1/8	1 7/16	.176	1.100	1.452
1-517	5/32	1 3/16	1 1/2	.176	1.163	1.515
1-518	5/32	1 1/4	1 9/16	.176	1.225	1.577
1-519	5/32	1 5/16	1 5/8	.176	1.288	1.640
1-520	5/32	1 3/8	1 11/16	.176	1.350	1.702
1-521	5/32	1 7/16	1 3/4	.176	1.413	1.765
1-522	5/32	1 1/2	1 13/16	.176	1.475	1.827
1-524	5/32	1 5/8	1 15/16	.176	1.600	1.952
1-526	5/32	1 3/4	2 1/16	.176	1.725	2.077
1-528	5/32	1 7/8	2 3/16	.176	1.850	2.202
1-530	5/32	2	2 5/16	.176	1.975	2.327
1-532	5/32	2 1/8	2 7/16	.176	2.100	2.452
1-534	5/32	2 1/4	2 9/16	.176	2.225	2.577
1-536	5/32	2 3/8	2 11/16	.176	2.350	2.702
1-538	5/32	2 1/2	2 13/16	.176	2.475	2.827
1-540	5/32	2 5/8	2 15/16	.176	2.600	2.952
1-542	5/32	2 3/4	3 1/16	.176	2.725	3.077
1-544	5/32	2 7/8	3 3/16	.176	2.850	3.202
1-546	5/32	3	3 5/16	.176	2.975	3.327
1-548	5/32	3 1/8	3 7/16	.176	3.100	3.452
1-550	5/32	3 1/4	3 9/16	.176	3.225	3.577
1-552	5/32	3 3/8	3 11/16	.176	3.350	3.702
1-554	5/32	3 1/2	3 13/16	.176	3.475	3.827
1-556	5/32	3 5/8	3 15/16	.176	3.600	3.952
1-558	5/32	3 3/4	4 1/16	.176	3.725	4.077
1-560	5/32	3 7/8	4 3/16	.176	3.850	4.202
1-562	5/32	4	4 5/16	.176	3.975	4.327
1-563	5/32	4 1/8	4 7/16	.176	4.100	4.452
1-565	5/32	4 1/4	4 9/16	.176	4.225	4.577
1-566	5/32	4 3/8	4 11/16	.176	4.350	4.702
1-568	5/32	4 1/2	4 13/16	.176	4.475	4.827
1-569	5/32	4 5/8	4 15/16	.176	4.600	4.952
1-571	5/32	4 3/4	5 1/16	.176	4.725	5.077
1-572	5/32	4 7/8	5 3/16	.176	4.850	5.202

*Call
Precision
Associates
For Sizes
Not Listed*

D20C28b