

# O-Ring Handbook



#### Welcome to the RF Carlson Company

Thank you for considering the RF Carlson Company for your sealing needs. Selecting the proper o-ring material and size can be a daunting experience with many options available. Which size do you need? Is the material correct? Will pressure have any bearing?

We at the RF Carlson Company would like to introduce our o-ring catalog featuring size and material options as well as other factors (such as temperature and pressure range considerations). The information enclosed will help you as you take your steps through the seal process.

In addition to this catalogue, we have other options available:

For example, visit our material selector guide at www.rfcarlson.com:

R. F. Carlson Co. Fluid Compatibility

Table

Choose a chemical		<u>Elastomer</u>	<u>Compatibility</u>			
Ortho-Dichlorobenzene Oxalic Acid	^	Nitrile	Unsatisfactory			
Oxygen, Cold Oxygen, 200-400øF		EPDM	Recommended			
Ozone Paint Thinner, Duco	~	Fluorocarbon	Recommended			
Peanut All		Neoprene	Fair			
		Silicone	Recommended			
		Perfluoroelastomer	Recommended			

Or contact one our experienced customer sales representatives at the phone number listed in this handbook. As an organization on our way to being employee owned, we are confident that you will be very satisfied with the services that we offer.

Also, as an independent seal distributor we do not promote any particular (and sometimes more costly) brand, but simply show you which products are best for your applications.

Again, thank you for your consideration of our company.





### **O-RING HANDBOOK**

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This handbook provides general product/guideline options and is intended for users already having sealing expertise. It is important that all aspects of any sealing application be analyzed and reviewed properly prior to the making of final selections.

Due to the variety of operating conditions and applications for the products listed herein, users of this handbook are solely responsible for making the final selection of products/systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs are subject to change by RF Carlson Co.

## O-RING STANDARD SIZE (AS568)

AS 568A UNIVERSAL	NOMINAL SIZE			STANDARD O-RING SIZE			METRIC O-RING SIZE				
DASH NUMBERS	INCHES			INCHES			MILLIMETERS				
	I.D.	O.D.	W.	I.D.	±	W.	±	I.D.	±	W.	±
-001 -002	1/ <sub>32</sub>	<sup>3</sup> / <sub>32</sub>	1/ <sub>32</sub>	.029	.004	.040	.003	0.74	0.10	1.02	0.08
-002	<sup>3</sup> / <sub>64</sub>	<sup>9</sup> / <sub>64</sub>	3/64	.042	.004	.050	.003	1.07	0.10	1.27	0.08
-003	1/16 5/64	<sup>3</sup> / <sub>16</sub>	1/ <sub>16</sub>	.056	.004	.060	.003	1.42	0.10	1.52	0.08
-004	l .		1/ <sub>16</sub>	.070	.005	.070	.003	1.78	0.13	1.78	0.08
	3/32	7/32	1/16	.101	.005	.070	.003	2.57	0.13	1.78	0.08
-006	1/8	1/4	1/16	.114	.005	.070	.003	2.90	0.13	1.78	0.08
-007	5/32	9/32	1/16	.145	.005	.070	.003	3.68	0.13	1.78	0.08
-008	3/16	5/16	1/16	.176	.005	.070	.003	4.47	0.13	1.78	0.08
-009	7/32	11/32	1/16	.208	.005	.070	.003	5.28	0.13	1.78	0.08
-010	1/4	3/8	1/16	.239	.005	.070	.003	6.07	0.13	1.78	0.08
-011	5/16	7/16	1/16	.301	.005	.070	.003	7.65	0.13	1.78	0.08
-012	3/8	1/2	1/16	.364	.005	.070	.003	9.25	0.13	1.78	0.08
-013	7/16	9/16	1/16	.426	.005	.070	.003	10.82	0.13	1.78	0.08
-014	1/2	5/8	1/16	.489	.005	.070	.003	12.42	0.13	1.78	0.08
-015	9/16	11/16	1/16	.551	.007	.070	.003	14.00	0.18	1.78	0.08
-016	5/8	3/4	1/16	.614	.009	.070	.003	15.60	0.23	1.78	0.08
-017	11/16	13/16	1/16	.676	.009	.070	.003	17.17	0.23	1.78	0.08
-018	3/4	7/8	1/16	.739	.009	.070	.003	18.77	0.23	1.78	0.08
-019	13/16	<sup>15</sup> / <sub>16</sub>	1/16	.801	.009	.070	.003	20.35	0.23	1.78	0.08
-020	7/8	1	1/16	.864	.009	.070	.003	21.95	0.23	1.78	0.08
-021	<sup>15</sup> /16	11/16	1/16	.926	.009	.070	.003	23.52	0.23	1.78	0.08
-022	1	1/8	1/16	.989	.010	.070	.003	25.12	0.25	1.78	0.08
-023	11/16	13/16	1/16	1.051	.010	.070	.003	26.70	0.25	1.78	0.08
-024	11/8	11/4	1/16	1.114	.010	.070	.003	28.30	0.25	1.78	0.08
-025	13/16	15/16	1/16	1.176	.011	.070	.003	29.87	0.28	1.78	0.08
-026	11/4	13/8	1/16	1.239	.011	.070	.003	31.47	0.28	1.78	0.08
-027	15/16	17/16	1/16	1.301	.011	.070	.003	33.05	0.28	1.78	0.08
-028	13/8	11/2	1/16	1.364	.013	.070	.003	34.65	0.33	1.78	0.08
-029	11/2	15/8	1/16	1.489	.013	.070	.003	37.82	0.33	1.78	0.08
-030	15/8	13/4	1/16	1.614	.013	.070	.003	41.00	0.33	1.78	0.08
-031	13/4	17/8	1/16	1.739	.015	.070	.003	44.17	0.38	1.78	0.08
-032	17/8	2	1/16	1.864	.015	.070	.003	47.35	0.38	1.78	0.08
-033	2	21/8	1/16	1.989	.018	.070	.003	50.52	0.46	1.78	0.08
-034	21/8	21/4	1/16	2.114	.018	.070	.003	53.70	0.46	1.78	0.08
-035	21/4	$2^{3/8}$	1/16	2.239	.018	.070	.003	56.87	0.46	1.78	0.08
-036	23/8	21/2	1/16	2.364	.018	.070	.003	60.05	0.46	1.78	0.08
-037	21/2	25/8	1/16	2.489	.018	.070	.003	63.22	0.46	1.78	0.08
-038	25/8	$2^{3}/_{4}$	1/16	2.614	.020	.070	.003	66.40	0.51	1.78	0.08
-039	23/4	27/8	1/16	2.739	.020	.070	.003	69.57	0.51	1.78	0.08
-040	27/8	3	1/16	2.864	.020	.070	.003	72.75	0.51	1.78	0.08
-041	3	31/8	1/16	2.989	.024	.070	.003	75.92	0.61	1.78	0.08

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