



AEROSPACE STANDARD

AS9955™**REV. B**Issued 1998-05
Revised 2020-06

Superseding AS9955A

(R) O-Ring Machined from AMS3668 Material

RATIONALE

This standard was transferred from E-25 to A-6 and has been revised to make its format consistent with other A-6 O-ring part standards. For the sake of efficiency, the O-rings previously listed in AS9956 are now integrated into this standard. AS9956 is cancelled and the reader directed to AS9955.

FOREWORD

The initial release of this document was intended to replace Military Specification MS9955. Any Part Numbers established by the original Specification remain unchanged.

1. SCOPE

This standard establishes the dimensional and visual quality requirements, lot requirements, and packaging and labeling requirements for O-rings machined from AMS3668 material. It shall be used for procurement purposes.

1.1 Field of Application

These O-rings are used in applications requiring chemical inertness up to 500 °F (260 °C) and provide improved mechanical and/or electrical properties but usage is not limited to such applications.

NOTES:

1. Each application should be considered separately.
2. The operating temperature range of the material is a general temperature range, but the presence of particular fluids and design parameters may modify this range.
3. Each user should make his own tests to determine the suitability for his own particular use.
4. These O-rings are intended only for use as static seals.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

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Documents
Document Sharing Hub

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15086-7511, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AMS2817	Packaging and Identification of Molded Elastomeric Seals and Sealing Components
AMS3668	Polytetrafluoroethylene (PTFE) Moldings Premium Grade, As Sintered
AS1299	Adapter - Port Connection Ring Locked to Flareless Tube End
AS1300	Port - Ring Locked Fluid Connection Type Standard Dimensions For
AS1985	Fitting, Assembly, Adapter Ring Locked Port Connection To Flared Tube End
AS1986	Fitting Assembly, Adapter Ring Locked Port Connection To Beam Seal 4000 PSI And 5000 PSI
AS4099	Adapter, Assembly - Port Connection Ring Locked To Flareless Tube End
AS4383	Fitting Assembly, Reducer Ring Locked Port Connection To Beam Seal 5000 PSI
AS33649	Bosses, Fluid Connection, Internal Straight Thread

2.2 ASQ Publications

Available from American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203, Tel: 800-248-1946 (United States or Canada), 001-800-514-1564 (Mexico) or +1-414-272-8575 (all other locations), www.asq.org.

ANSI/ASQ Z1.4 2003	Sampling Procedures and Tables for Inspection by Attributes
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2.3 ASME Publications

Available from ASME, P.O. Box 2900, 22 Law Drive, Fairfield, NJ 07007-2900, Tel: 800-843-2763 (U.S./Canada), 001-800-843-2763 (Mexico), 973-882-1170 (outside North America), www.asme.org.

ASME Y14.5	Dimensioning and Tolerancing
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3. REQUIREMENTS

3.1 Material

The material shall be in accordance with AMS3668, Type 2.

3.2 Dimensions

See Figure 1 and Table 1 for standard sizes and Table 2 for boss O-ring sizes for AS33649 ports.

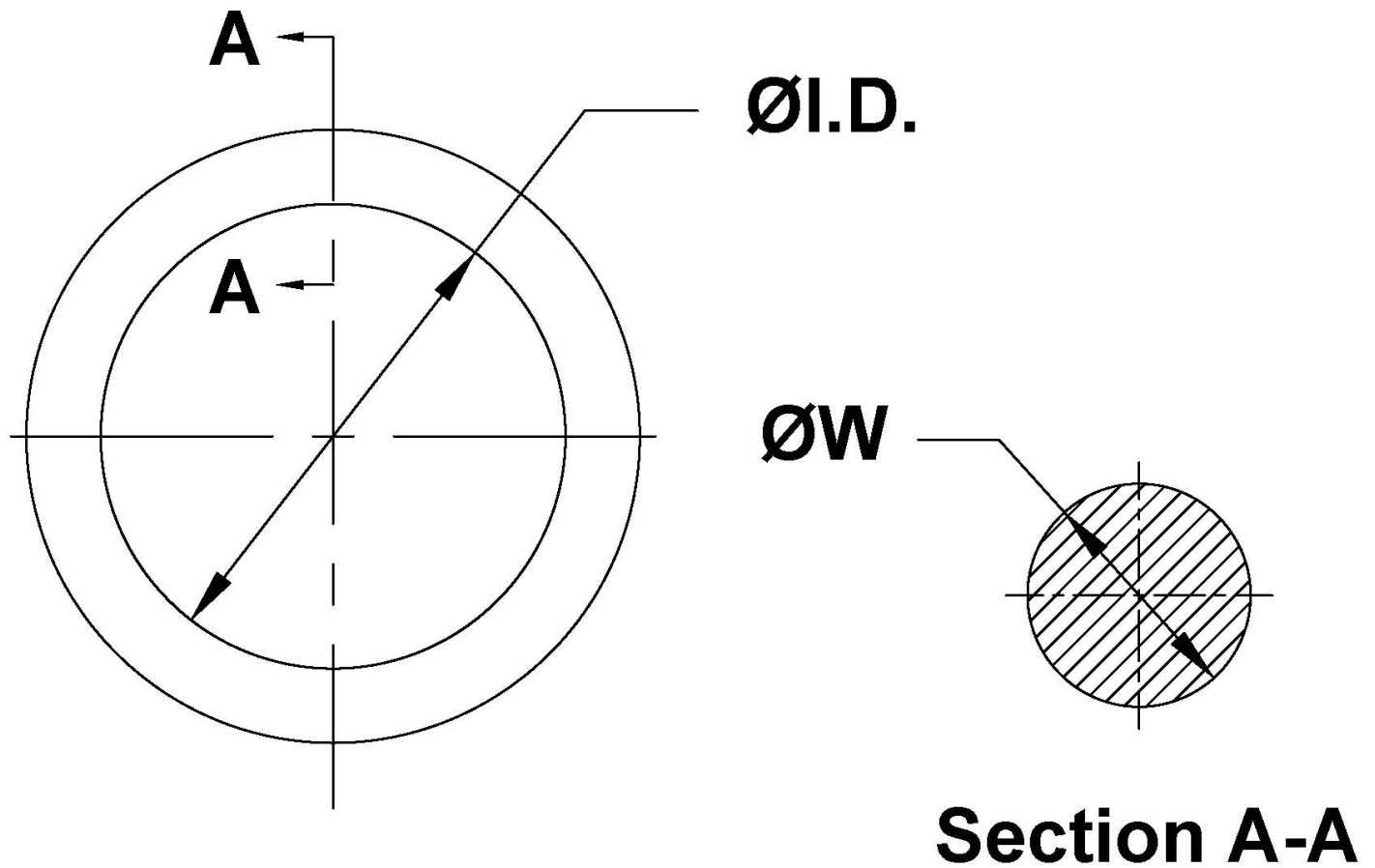


Figure 1 - O-Ring dimensions - width (ØW) and inside diameter (Ø ID)

NOTE: Dimensions and tolerancing per ASME Y14.5.

Table 1 - Part numbers and dimensions

Part Number	Ø ID	Ø ID	ØW	ØW	Approx Mass	
	Inches	mm	Inches	mm	LB/100	KG/100
MS9955-001	.025/ .033	0.64/ 0.84	.037/.043	0.94/1.09	.002	0.001
MS9955-002	.038/ .046	0.97/ 1.17	.047/.053	1.19/1.35	.005	0.002
MS9955-003	.052/ .060	1.32/ 1.52	.057/.063	1.45/1.60	.008	0.004
MS9955-004	.065/ .075	1.65/ 1.91	.067/.073	1.70/1.85	.013	0.006
MS9955-005	.096/ .106	2.44/ 2.69	.067/.073	1.70/1.85	.016	0.007
MS9955-006	.109/ .119	2.77/ 3.02	.067/.073	1.70/1.85	.017	0.008
MS9955-007	.140/ .150	3.56/ 3.81	.067/.073	1.70/1.85	.020	0.009
MS9955-008	.171/ .181	4.34/ 4.60	.067/.073	1.70/1.85	.023	0.010
MS9955-009	.203/ .213	5.16/ 5.41	.067/.073	1.70/1.85	.027	0.012
MS9955-010	.234/ .244	5.94/ 6.20	.067/.073	1.70/1.85	.029	0.013
MS9955-011	.296/ .306	7.52/ 7.77	.067/.073	1.70/1.85	.035	0.016
MS9955-012	.359/ .369	9.12/ 9.37	.067/.073	1.70/1.85	.041	0.019
MS9955-013	.421/ .431	10.69/ 10.95	.067/.073	1.70/1.85	.047	0.021
MS9955-014	.484/ .494	12.29/ 12.55	.067/.073	1.70/1.85	.053	0.024
MS9955-015	.544/ .558	13.82/ 14.17	.067/.073	1.70/1.85	.058	0.026
MS9955-016	.605/ .623	15.37/ 15.82	.067/.073	1.70/1.85	.065	0.030
MS9955-017	.667/ .685	16.94/ 17.40	.067/.073	1.70/1.85	.070	0.032
MS9955-018	.730/ .748	18.54/ 19.00	.067/.073	1.70/1.85	.076	0.035
MS9955-019	.792/ .810	20.12/ 20.57	.067/.073	1.70/1.85	.082	0.037
MS9955-020	.855/ .873	21.72/ 22.17	.067/.073	1.70/1.85	.088	0.040
MS9955-021	.917/ .935	23.29/ 23.75	.067/.073	1.70/1.85	.094	0.043
MS9955-022	.979/ .999	24.87/ 25.37	.067/.073	1.70/1.85	.100	0.045
MS9955-023	1.041/1.061	26.44/ 26.95	.067/.073	1.70/1.85	.106	0.048
MS9955-024	1.104/1.124	28.04/ 28.55	.067/.073	1.70/1.85	.112	0.051
MS9955-025	1.165/1.187	29.59/ 30.15	.067/.073	1.70/1.85	.118	0.054
MS9955-026	1.228/1.250	31.19/ 31.75	.067/.073	1.70/1.85	.123	0.056
MS9955-027	1.290/1.312	32.77/ 33.33	.067/.073	1.70/1.85	.129	0.059
MS9955-028	1.351/1.377	34.32/ 34.98	.067/.073	1.70/1.85	.135	0.061
MS9955-029	1.476/1.502	37.49/ 38.15	.067/.073	1.70/1.85	.147	0.067
MS9955-030	1.601/1.627	40.67/ 41.33	.067/.073	1.70/1.85	.159	0.072
MS9955-031	1.724/1.754	43.79/ 44.55	.067/.073	1.70/1.85	.171	0.078
MS9955-032	1.849/1.879	46.97/ 47.73	.067/.073	1.70/1.85	.183	0.083
MS9955-033	1.971/2.007	50.06/ 50.98	.067/.073	1.70/1.85	.194	0.088
MS9955-034	2.096/2.132	53.24/ 54.15	.067/.073	1.70/1.85	.206	0.094
MS9955-035	2.221/2.257	56.41/ 57.33	.067/.073	1.70/1.85	.218	0.099
MS9955-036	2.346/2.382	59.59/ 60.50	.067/.073	1.70/1.85	.229	0.104
MS9955-037	2.471/2.507	62.76/ 63.68	.067/.073	1.70/1.85	.241	0.109
MS9955-038	2.594/2.634	65.89/ 66.90	.067/.073	1.70/1.85	.253	0.115
MS9955-039	2.719/2.759	69.06/ 70.08	.067/.073	1.70/1.85	.265	0.120
MS9955-040	2.844/2.884	72.24/ 73.25	.067/.073	1.70/1.85	.277	0.126
MS9955-041	2.965/3.013	75.31/ 76.53	.067/.073	1.70/1.85	.289	0.131
MS9955-042	3.215/3.263	81.66/ 82.88	.067/.073	1.70/1.85	.312	0.142
MS9955-043	3.465/3.513	88.01/ 89.23	.067/.073	1.70/1.85	.336	0.153
MS9955-044	3.712/3.766	94.29/ 95.66	.067/.073	1.70/1.85	.359	0.163
MS9955-045	3.962/4.016	100.64/102.01	.067/.073	1.70/1.85	.383	0.174
MS9955-046	4.209/4.269	106.91/108.43	.067/.073	1.70/1.85	.406	0.184
MS9955-047	4.459/4.519	113.26/114.78	.067/.073	1.70/1.85	.430	0.195
MS9955-048	4.709/4.769	119.61/121.13	.067/.073	1.70/1.85	.454	0.206
MS9955-049	4.952/5.026	125.78/127.66	.067/.073	1.70/1.85	.477	0.217
MS9955-050	5.202/5.276	132.13/134.01	.067/.073	1.70/1.85	.500	0.227