

REV. C	RATIONALE		FEDERAL SUPPLY CLASS 5331
	THIS STANDARD HAS BEEN REVISED TO CLARIFY THAT THESE ARE NITRILE O-RINGS AND TO UPDATE THE REFERENCE TO AS5316, IN ADDITION TO EDITORIAL CHANGES.		
AS29561™	1. SCOPE THIS STANDARD ESTABLISHES THE DIMENSIONAL AND VISUAL QUALITY REQUIREMENTS, LOT REQUIREMENTS AND PACKAGING AND LABELING REQUIREMENTS FOR O-RINGS MOLDED FROM AMS-R-7362 NITRILE RUBBER. IT SHALL BE USED FOR PROCUREMENT PURPOSES.		
	1.1 APPLICATION THIS SPECIFICATION COVERS A NITRILE RUBBER FOR USE WHERE RESISTANCE TO DIESTER SYNTHETIC OILS IS REQUIRED. THIS MATERIAL MAY NOT BE SUITABLE FOR USE IN POLYOL ESTER BASED TURBINE OILS.		
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	AMS2817 PACKAGING AND IDENTIFICATION, PREFORMED PACKINGS		
	AMS-R-7362 NITRILE RUBBER, SYNTHETIC, SOLID, SHEET, STRIP AND FABRICATED PARTS, SYNTHETIC OIL RESISTANT		
	AS5316 STORAGE OF ELASTOMERS AND SEAL ASSEMBLIES WHICH INCLUDE AN ELASTOMER ELEMENT PRIOR TO HARDWARE ASSEMBLY		
	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.		
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	ASME Y14.5 DIMENSIONING AND TOLERANCING REQUIREMENTS		
	For more information on this standard, visit, http://www.sae.org/technical/standards/AS29561C		
CUSTODIAN: SAE A-6C2 SEALS PANEL		THIRD ANGLE PROJECTION	
PROCUREMENT SPECIFICATION			
	AEROSPACE STANDARD		AS29561™ SHEET 1 OF 12
	(R) O-RING MOLDED FROM AMS-R-7362 NITRILE RUBBER MATERIAL		
		REV. C	

ISSUED 2001-03 REVISED 2021-09

2.4 ISO PUBLICATIONS

COPIES OF THESE DOCUMENTS ARE AVAILABLE ONLINE AT <http://webstore.ansi.org/>.

ISO 3601-1 FLUID POWER SYSTEMS – O-RINGS – PART 1: INSIDE DIAMETERS, CROSS-SECTIONS, TOLERANCES AND DESIGNATION CODES

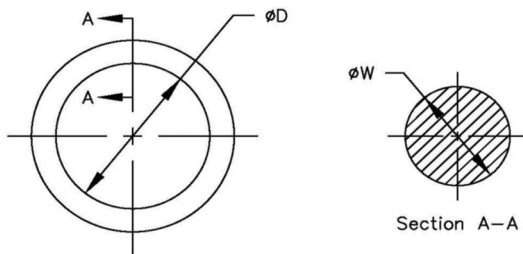
ISO 3601-3 FLUID POWER SYSTEMS – O-RINGS – PART 3: QUALITY ACCEPTANCE CRITERIA

3. O-RING PART NUMBERS, DIMENSIONS, AND MASSES

FIGURE 1 ILLUSTRATES THE O-RING DIMENSIONS THAT ARE USED IN THIS STANDARD.

TABLE 1 PROVIDES THE PART NUMBERS, DIMENSIONS AND APPROXIMATE MASSES FOR AEROSPACE STANDARD SIZE O-RINGS.

TABLE 2 PROVIDES THE PART NUMBERS, DIMENSIONS AND APPROXIMATE MASSES FOR STRAIGHT THREAD TUBE FITTING BOSS GASKETS.



NOTE: DIMENSIONS AND TOLERANCES AS PER ASME Y14.5

FIGURE 1 - O-RING DIMENSIONS: WIDTH (ϕW) AND INSIDE DIAMETER (ϕD)

	AEROSPACE STANDARD	AS29561™ SHEET 2 OF 12	REV. C
	(R) O-RING MOLDED FROM AMS-R-7362 NITRILE RUBBER MATERIAL		

TABLE 1 - PART NUMBERS, DIMENSIONS, AND MASSES

NOTE	PART NUMBER	ØD (INCHES)		ØD (mm)		ØW (INCHES)		ØW (mm)		APPROX MASS	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	(LB/100)	(KG/100)
	MS29561-001	0.025	0.033	0.64	0.84	0.037	0.043	0.94	1.09	0.001	0.001
	MS29561-002	0.038	0.046	0.97	1.17	0.047	0.053	1.19	1.35	0.003	0.001
	MS29561-003	0.052	0.060	1.32	1.52	0.057	0.063	1.45	1.60	0.005	0.002
	MS29561-004	0.065	0.075	1.65	1.91	0.067	0.073	1.70	1.85	0.008	0.004
	MS29561-005	0.096	0.106	2.44	2.69	0.067	0.073	1.70	1.85	0.010	0.005
	MS29561-006	0.109	0.119	2.77	3.02	0.067	0.073	1.70	1.85	0.010	0.005
	MS29561-007	0.140	0.150	3.56	3.81	0.067	0.073	1.70	1.85	0.012	0.005
	MS29561-008	0.171	0.181	4.34	4.60	0.067	0.073	1.70	1.85	0.014	0.006
	MS29561-009	0.203	0.213	5.16	5.41	0.067	0.073	1.70	1.85	0.016	0.007
	MS29561-010	0.234	0.244	5.94	6.20	0.067	0.073	1.70	1.85	0.017	0.008
	MS29561-011	0.296	0.306	7.52	7.77	0.067	0.073	1.70	1.85	0.021	0.010
	MS29561-012	0.359	0.369	9.12	9.37	0.067	0.073	1.70	1.85	0.024	0.011
	MS29561-013	0.421	0.431	10.69	10.95	0.067	0.073	1.70	1.85	0.028	0.013
	MS29561-014	0.484	0.494	12.29	12.55	0.067	0.073	1.70	1.85	0.031	0.014
	MS29561-015	0.544	0.558	13.82	14.17	0.067	0.073	1.70	1.85	0.034	0.015
	MS29561-016	0.605	0.623	15.37	15.82	0.067	0.073	1.70	1.85	0.038	0.017
	MS29561-017	0.667	0.685	16.94	17.40	0.067	0.073	1.70	1.85	0.041	0.019
	MS29561-018	0.730	0.748	18.54	19.00	0.067	0.073	1.70	1.85	0.045	0.020
	MS29561-019	0.792	0.810	20.12	20.57	0.067	0.073	1.70	1.85	0.048	0.022
	MS29561-020	0.855	0.873	21.72	22.17	0.067	0.073	1.70	1.85	0.052	0.024
	MS29561-021	0.917	0.935	23.29	23.75	0.067	0.073	1.70	1.85	0.055	0.025
	MS29561-022	0.979	0.999	24.87	25.37	0.067	0.073	1.70	1.85	0.059	0.027
	MS29561-023	1.041	1.061	26.44	26.95	0.067	0.073	1.70	1.85	0.062	0.028
	MS29561-024	1.104	1.124	28.04	28.55	0.067	0.073	1.70	1.85	0.066	0.030
	MS29561-025	1.165	1.187	29.59	30.15	0.067	0.073	1.70	1.85	0.069	0.031
	MS29561-026	1.228	1.250	31.19	31.75	0.067	0.073	1.70	1.85	0.073	0.033
	MS29561-027	1.290	1.312	32.77	33.32	0.067	0.073	1.70	1.85	0.076	0.034
	MS29561-028	1.351	1.377	34.32	34.98	0.067	0.073	1.70	1.85	0.080	0.036
	MS29561-029	1.476	1.502	37.49	38.15	0.067	0.073	1.70	1.85	0.086	0.039
	MS29561-030	1.601	1.627	40.67	41.33	0.067	0.073	1.70	1.85	0.094	0.043
	MS29561-031	1.724	1.754	43.79	44.55	0.067	0.073	1.70	1.85	0.101	0.046
	MS29561-032	1.849	1.879	46.96	47.73	0.067	0.073	1.70	1.85	0.108	0.049
	MS29561-033	1.971	2.007	50.06	50.98	0.067	0.073	1.70	1.85	0.115	0.052
	MS29561-034	2.096	2.132	53.24	54.15	0.067	0.073	1.70	1.85	0.121	0.055
	MS29561-035	2.221	2.257	56.41	57.33	0.067	0.073	1.70	1.85	0.128	0.058
	MS29561-036	2.346	2.382	59.59	60.50	0.067	0.073	1.70	1.85	0.135	0.061
	MS29561-037	2.471	2.507	62.76	63.68	0.067	0.073	1.70	1.85	0.142	0.064
	MS29561-038	2.594	2.634	65.89	66.90	0.067	0.073	1.70	1.85	0.150	0.068
	MS29561-039	2.719	2.759	69.06	70.08	0.067	0.073	1.70	1.85	0.156	0.071
	MS29561-040	2.844	2.884	72.24	73.25	0.067	0.073	1.70	1.85	0.163	0.074
	MS29561-041	2.965	3.013	75.31	76.53	0.067	0.073	1.70	1.85	0.170	0.077
	MS29561-042	3.215	3.263	81.66	82.88	0.067	0.073	1.70	1.85	0.184	0.083
	MS29561-043	3.465	3.513	88.01	89.23	0.067	0.073	1.70	1.85	0.198	0.090
	MS29561-044	3.712	3.766	94.28	95.66	0.067	0.073	1.70	1.85	0.212	0.096
	MS29561-045	3.962	4.016	100.63	102.01	0.067	0.073	1.70	1.85	0.226	0.102
	MS29561-046	4.209	4.269	106.91	108.43	0.067	0.073	1.70	1.85	0.240	0.109
	MS29561-047	4.459	4.519	113.26	114.78	0.067	0.073	1.70	1.85	0.253	0.115
	MS29561-048	4.709	4.769	119.61	121.13	0.067	0.073	1.70	1.85	0.267	0.121
	MS29561-049	4.952	5.026	125.78	127.66	0.067	0.073	1.70	1.85	0.282	0.128
	MS29561-050	5.202	5.276	132.13	134.01	0.067	0.073	1.70	1.85	0.295	0.134



AEROSPACE STANDARD

(R) O-RING MOLDED FROM AMS-R-7362
NITRILE RUBBER MATERIAL

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TABLE 1 - AEROSPACE SIZE STANDARDS FOR O-RINGS (CONTINUED)

NOTE	PART NUMBER	ØD (INCHES)		ØD (mm)		ØW (INCHES)		ØW (mm)		APPROX MASS	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	(LB/100)	(KG/100)
	MS29561-102	0.044	0.054	1.12	1.37	0.100	0.106	2.54	2.69	0.018	0.008
	MS29561-103	0.076	0.086	1.93	2.18	0.100	0.106	2.54	2.69	0.022	0.010
	MS29561-104	0.107	0.117	2.72	2.97	0.100	0.106	2.54	2.69	0.026	0.012
	MS29561-105	0.138	0.148	3.51	3.76	0.100	0.106	2.54	2.69	0.029	0.013
	MS29561-106	0.169	0.179	4.29	4.55	0.100	0.106	2.54	2.69	0.034	0.015
	MS29561-107	0.201	0.211	5.11	5.36	0.100	0.106	2.54	2.69	0.037	0.017
	MS29561-108	0.232	0.242	5.89	6.15	0.100	0.106	2.54	2.69	0.041	0.019
	MS29561-109	0.294	0.304	7.47	7.72	0.100	0.106	2.54	2.69	0.048	0.022
	MS29561-110	0.357	0.367	9.07	9.32	0.100	0.106	2.54	2.69	0.056	0.025
	MS29561-111	0.419	0.429	10.64	10.90	0.100	0.106	2.54	2.69	0.063	0.029
	MS29561-112	0.482	0.492	12.24	12.50	0.100	0.106	2.54	2.69	0.071	0.032
	MS29561-113	0.542	0.556	13.77	14.12	0.100	0.106	2.54	2.69	0.079	0.036
	MS29561-114	0.603	0.621	15.32	15.77	0.100	0.106	2.54	2.69	0.086	0.039
	MS29561-115	0.665	0.683	16.89	17.35	0.100	0.106	2.54	2.69	0.093	0.042
	MS29561-116	0.728	0.746	18.49	18.95	0.100	0.106	2.54	2.69	0.101	0.046
	MS29561-117	0.789	0.809	20.04	20.55	0.100	0.106	2.54	2.69	0.108	0.049
	MS29561-118	0.852	0.872	21.64	22.15	0.100	0.106	2.54	2.69	0.116	0.053
	MS29561-119	0.914	0.934	23.22	23.72	0.100	0.106	2.54	2.69	0.124	0.056
	MS29561-120	0.977	0.997	24.82	25.32	0.100	0.106	2.54	2.69	0.131	0.059
	MS29561-121	1.039	1.059	26.39	26.90	0.100	0.106	2.54	2.69	0.139	0.063
	MS29561-122	1.102	1.122	27.99	28.50	0.100	0.106	2.54	2.69	0.146	0.066
	MS29561-123	1.162	1.186	29.51	30.12	0.100	0.106	2.54	2.69	0.154	0.070
	MS29561-124	1.225	1.249	31.12	31.72	0.100	0.106	2.54	2.69	0.161	0.073
	MS29561-125	1.287	1.311	32.69	33.30	0.100	0.106	2.54	2.69	0.169	0.077
	MS29561-126	1.350	1.374	34.29	34.90	0.100	0.106	2.54	2.69	0.176	0.080
	MS29561-127	1.412	1.436	35.86	36.47	0.100	0.106	2.54	2.69	0.184	0.083
	MS29561-128	1.475	1.499	37.46	38.07	0.100	0.106	2.54	2.69	0.191	0.087
	MS29561-129	1.534	1.564	38.96	39.73	0.100	0.106	2.54	2.69	0.199	0.090
	MS29561-130	1.597	1.627	40.56	41.33	0.100	0.106	2.54	2.69	0.207	0.094
	MS29561-131	1.659	1.689	42.14	42.90	0.100	0.106	2.54	2.69	0.214	0.097
	MS29561-132	1.722	1.752	43.74	44.50	0.100	0.106	2.54	2.69	0.222	0.101
	MS29561-133	1.784	1.814	45.31	46.08	0.100	0.106	2.54	2.69	0.230	0.104
	MS29561-134	1.847	1.877	46.91	47.68	0.100	0.106	2.54	2.69	0.236	0.107
	MS29561-135	1.908	1.942	48.46	49.33	0.100	0.106	2.54	2.69	0.244	0.111
	MS29561-136	1.970	2.004	50.04	50.90	0.100	0.106	2.54	2.69	0.252	0.114
	MS29561-137	2.033	2.067	51.64	52.50	0.100	0.106	2.54	2.69	0.259	0.117
	MS29561-138	2.095	2.129	53.21	54.08	0.100	0.106	2.54	2.69	0.267	0.121
	MS29561-139	2.158	2.192	54.81	55.68	0.100	0.106	2.54	2.69	0.274	0.124
	MS29561-140	2.220	2.254	56.39	57.25	0.100	0.106	2.54	2.69	0.282	0.128
	MS29561-141	2.280	2.320	57.91	58.93	0.100	0.106	2.54	2.69	0.289	0.131
	MS29561-142	2.342	2.382	59.49	60.50	0.100	0.106	2.54	2.69	0.297	0.135
	MS29561-143	2.405	2.445	61.09	62.10	0.100	0.106	2.54	2.69	0.304	0.138
	MS29561-144	2.467	2.507	62.66	63.68	0.100	0.106	2.54	2.69	0.312	0.142
	MS29561-145	2.530	2.570	64.26	65.28	0.100	0.106	2.54	2.69	0.319	0.145
	MS29561-146	2.592	2.632	65.84	66.85	0.100	0.106	2.54	2.69	0.327	0.148
	MS29561-147	2.653	2.697	67.39	68.50	0.100	0.106	2.54	2.69	0.334	0.152
	MS29561-148	2.715	2.759	68.96	70.08	0.100	0.106	2.54	2.69	0.342	0.155
	MS29561-149	2.778	2.822	70.56	71.68	0.100	0.106	2.54	2.69	0.350	0.159

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