

REV.
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AS83461™/2

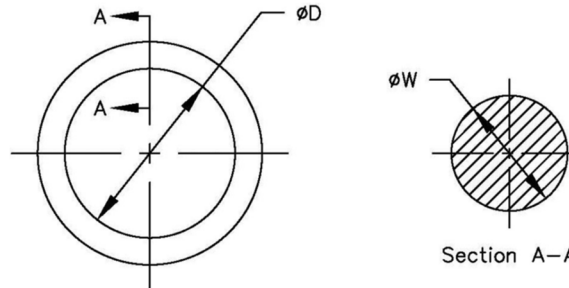
FEDERAL SUPPLY CLASS
5331

RATIONALE

THIS REVISION CORRECTS A TYPOGRAPHICAL ERROR AND UPDATES A REFERENCE NUMBER. NO TECHNICAL CHANGES ARE BEING MADE.

FOREWORD

THIS STANDARD ESTABLISHES THE DIMENSIONAL AND VISUAL QUALITY REQUIREMENTS, LOT REQUIREMENTS, AND PACKAGING AND LABELING REQUIREMENTS FOR O-RINGS MOLDED FROM AMS-P-83461 RUBBER. IT SHALL BE USED FOR PROCUREMENT PURPOSES.



NOTE: DIMENSION AND TOLERANCING PER ASME Y14.5

FIGURE 1 - O-RING DIMENSIONS: WIDTH (ØW) AND INSIDE (ØD) DIAMETERS

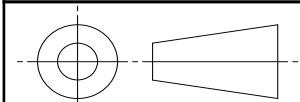
TABLE 1 - PART NUMBERS AND DIMENSIONS

PART NUMBER	NOMINAL TUBE OUTSIDE DIAMETER		ØD		ØW		APPROX MASS	
	(IN)	(MM)	(IN)	(MM)	(IN)	(MM)	(LB/100)	(KG/100)
M83461/2-901	.094	2.381	.180/.190	4.572/4.826	.053/.059	1.346/1.499	.006	0.003
M83461/2-902	.125	3.175	.234/.244	5.944/6.198	.061/.067	1.549/1.702	.011	0.005
M83461/2-903	.188	4.775	.296/.306	7.518/7.772	.061/.067	1.549/1.702	.013	0.006
M83461/2-904	.250	6.350	.346/.356	8.788/9.042	.069/.075	1.753/1.905	.020	0.009
M83461/2-905	.312	7.950	.409/.419	10.389/10.643	.069/.075	1.753/1.905	.023	0.011
M83461/2-906	.375	9.525	.463/.473	11.760/12.014	.075/.081	1.905/2.057	.031	0.014
M83461/2-907	.438	11.113	.523/.537	13.284/13.640	.079/.085	2.007/2.159	.039	0.018
M83461/2-908	.500	12.700	.635/.653	16.129/16.586	.084/.090	2.134/2.286	.053	0.024
M83461/2-909	.562	14.288	.697/.715	17.704/18.161	.094/.100	2.388/2.540	.073	0.033
M83461/2-910	.625	15.875	.746/.764	18.948/19.406	.094/.100	2.388/2.540	.078	0.035
M83461/2-911	.688	17.463	.854/.872	21.692/22.149	.112/.120	2.845/3.048	.126	0.057
M83461/2-912	.750	19.050	.915/.933	23.241/23.698	.112/.120	2.845/3.048	.135	0.061
M83461/2-913	.812	20.638	.976/.996	24.790/25.298	.112/.120	2.845/3.048	.145	0.066
M83461/2-914	.875	22.225	1.037/1.057	26.340/26.848	.112/.120	2.845/3.048	.153	0.070
M83461/2-916	1.000	25.400	1.161/1.181	29.489/29.997	.112/.120	2.845/3.048	.172	0.078
M83461/2-918	1.125	28.575	1.343/1.367	34.112/34.722	.112/.120	2.845/3.048	.199	0.090
M83461/2-920	1.250	31.750	1.461/1.489	37.109/37.821	.114/.122	2.896/3.099	.224	0.102
M83461/2-924	1.500	38.100	1.706/1.734	43.332/44.044	.114/.122	2.896/3.099	.261	0.118
M83461/2-928	1.750	44.450	2.072/2.108	52.629/53.543	.114/.122	2.896/3.099	.317	0.144
M83461/2-932	2.000	50.800	2.319/2.355	58.903/59.817	.114/.122	2.896/3.099	.354	0.161

For more information on this standard, visit

<https://www.sae.org/standards/content/AS83461/2D/>

THIRD ANGLE PROJECTION



CUSTODIAN: A-6/A-6C

PROCUREMENT SPECIFICATION: NONE



AEROSPACE STANDARD

STRAIGHT THREAD TUBE FITTING BOSS O-RING
MOLDED FROM AMS-P-83461 ACRYLONITRILE
BUTADIENE (NBR) RUBBER

AS83461™/2
SHEET 1 OF 3

REV.
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ISSUED 2009-09 REVISED 2021-06

1. APPLICATION

THESE O-RINGS TYPICALLY HAVE BEEN USED AS SEALS ON STRAIGHT-THREADED, FLARED-TUBE CONNECTION FITTINGS IN AEROSPACE APPLICATIONS FOR CONTACT WITH AIR AND HYDRAULIC FLUIDS CONFORMING TO MIL-PRF-83282 AND MIL-PRF-87257 AND IN LAND VEHICLE APPLICATIONS FOR CONTACT WITH AIR AND HYDRAULIC FLUIDS CONFORMING TO MIL-PRF-83282, MIL-PRF-46170, AND MIL-PRF-87257, BUT USAGE IS NOT LIMITED TO SUCH APPLICATIONS. EACH APPLICATION SHOULD BE CONSIDERED SEPARATELY. THESE O-RINGS HAVE A SERVICE TEMPERATURE RANGE OF -65 TO +275 °F (-54 TO +135 °C).

2. APPLICABLE REFERENCES

2.1 SAE PUBLICATIONS

AVAILABLE FROM SAE INTERNATIONAL, 400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096-0001, 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

AMS-P-83461 PACKING, PREFORMED, PETROLEUM HYDRAULIC FLUID RESISTANT, IMPROVED PERFORMANCE AT 275 °F (135 °C) FOR USE IN BOSS FITTINGS, SIZES AND TOLERANCES

AS5316 STORAGE OF ELASTOMER SEALS AND SEAL ASSEMBLIES WHICH INCLUDE AN ELASTOMER ELEMENT PRIOR TO HARDWARE ASSEMBLY

2.2 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 Y14.5-2009 DIMENSIONING AND TOLERANCING

2.3 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 SAMPLING PROCEDURES AND TABLES FOR INSPECTION BY ATTRIBUTES

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

2.5 U.S. GOVERNMENT PUBLICATIONS

COPIES OF THESE DOCUMENTS ARE AVAILABLE ONLINE AT <https://quicksearch.dla.mil>.

MIL-PRF-46170 HYDRAULIC FLUID, FIRE RESISTANT, SYNTHETIC HYDROCARBON BASE

MIL-PRF-83282 HYDRAULIC FLUID, FIRE RESISTANT, SYNTHETIC HYDROCARBON BASE, AIRCRAFT, METRIC

MIL-PRF-87257 HYDRAULIC FLUID, PETROLEUM BASE, FOR PRESERVATION AND OPERATION


3. REQUIREMENTS

3.1 PART NUMBER: THE O-RING PART NUMBERS ARE DESIGNATED AS MS83461/2-9XX, WHERE 9XX INDICATES THE DASH SIZE.

3.2 DO NOT USE UNASSIGNED PART NUMBERS.

3.3 MATERIAL: THE MATERIAL SHALL BE IN ACCORDANCE WITH AMS-P-83461.

3.4 DIMENSIONAL AND VISUAL INSPECTION: PRIOR TO INSPECTION, MOLD FLASH SHALL BE REMOVED FROM THE O-RINGS IN SUCH A MANNER THAT THEY CONFORM TO THE REQUIREMENTS SPECIFIED HEREIN. FOR END OF PROCESS INSPECTION, EACH INDIVIDUAL O-RING (100%) SHALL BE VISUALLY INSPECTED AT 1X MAGNIFICATION FOR MOLD FLASH, BACKRIND,

	AEROSPACE STANDARD	AS83461™/2 SHEET 2 OF 3	REV. D
	STRAIGHT THREAD TUBE FITTING BOSS O-RING MOLDED FROM AMS-P-83461 ACRLONITRILE BUTADIENE (NBR) RUBBER		