

REV.
B

AS27196

RATIONALE

FEDERAL SUPPLY CLASS
5330

THE PURPOSE OF THIS REVISION IS TO COMPLETELY UPDATE THE FIGURES, FORMAT AND REQUIREMENTS TO ALIGN WITH CURRENT STANDARDS AND TO REMOVE REFERENCES TO OBSOLETE DOCUMENTS.

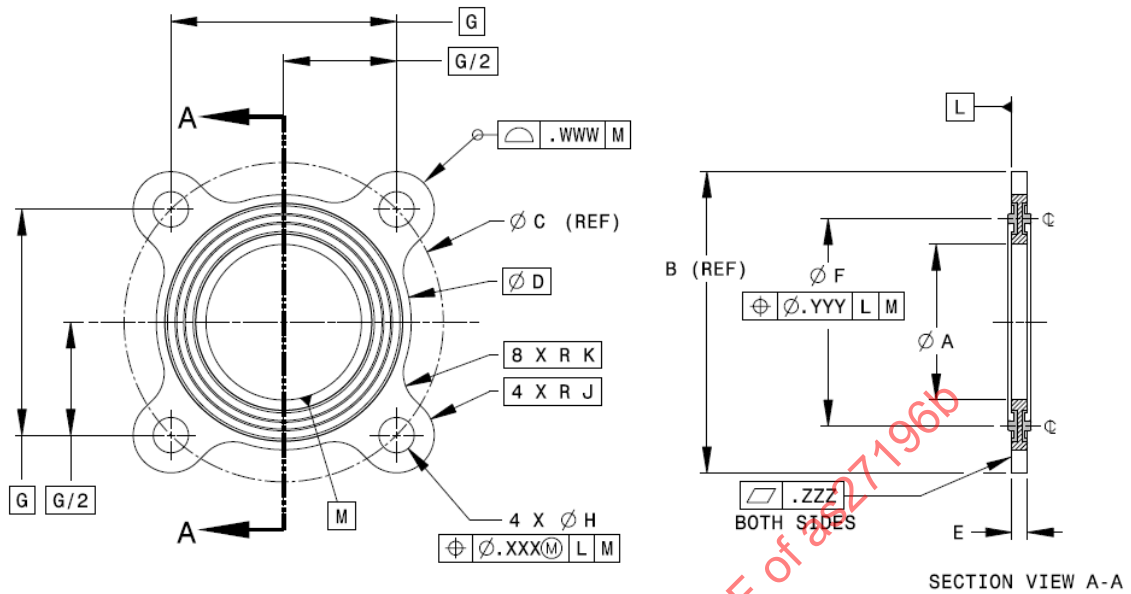


FIGURE 1 - SEAL -12 THRU -32

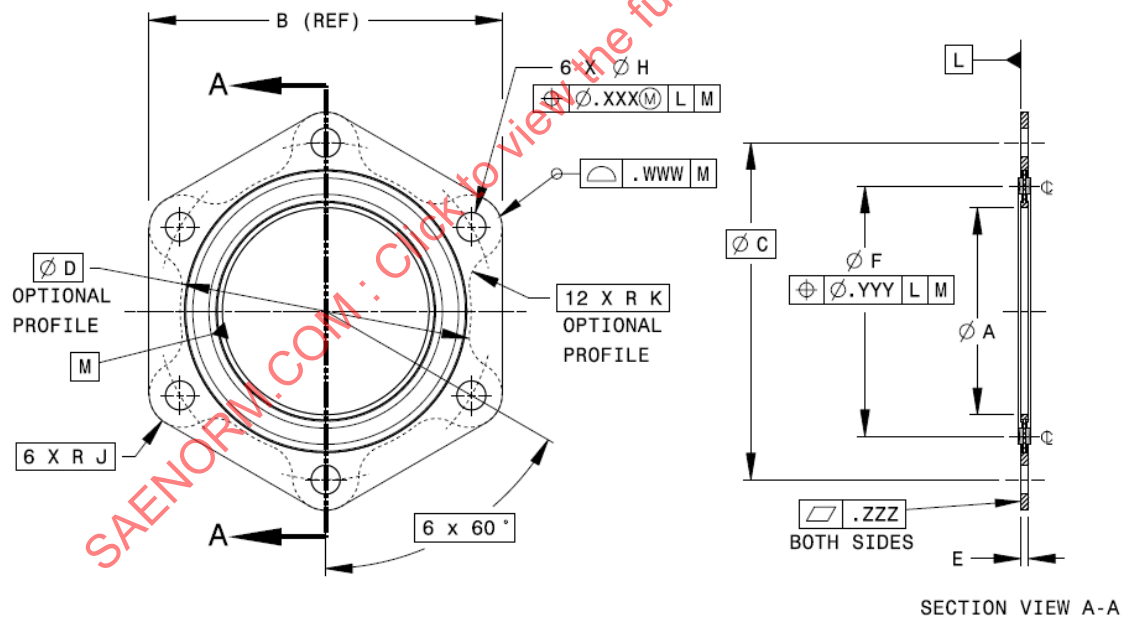
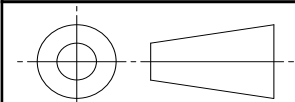


FIGURE 2 - SEAL -40 THRU -48

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS27196B>

THIRD ANGLE PROJECTION



CUSTODIAN: A-6/A-6C

PROCUREMENT SPECIFICATION: NONE



AEROSPACE STANDARD

(R) SEAL, BONDED, 302 CORROSION RESISTANT STEEL, AMS5516, MOLD IN GROOVE, FLUOROCARBON RUBBER, AMS7276

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SHEET 1 OF 6

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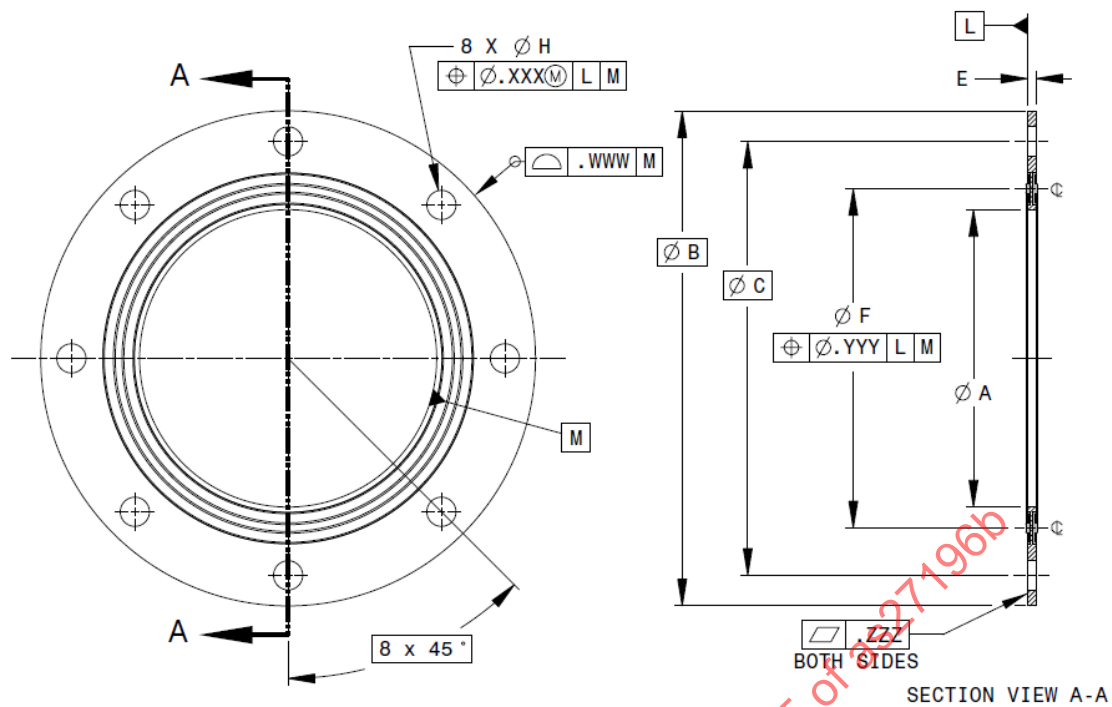


FIGURE 3 - SEAL -56 THRU -64

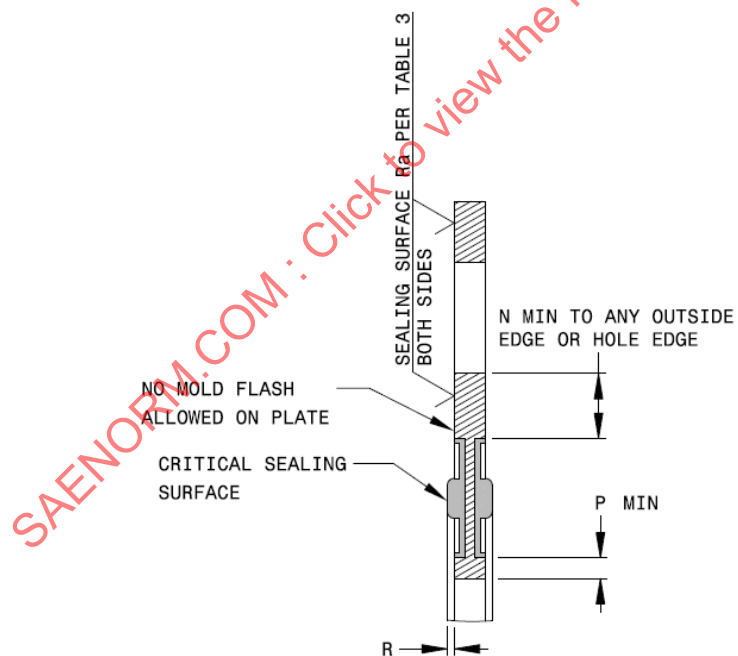
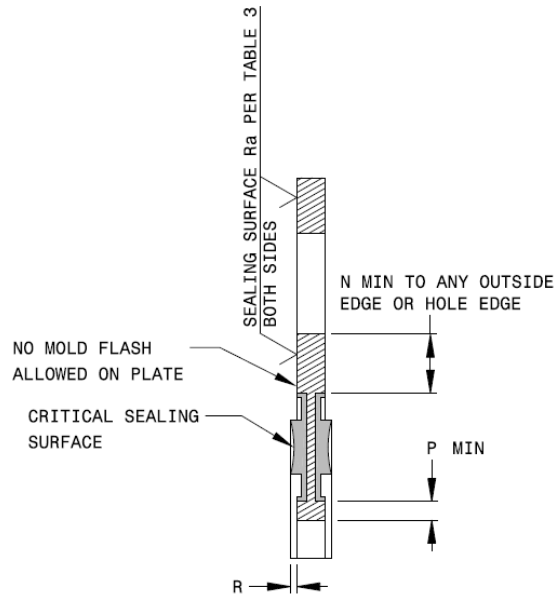


FIGURE 4 - ENLARGED SECTION, TYPICAL FOR ALL SIZES



NOTE: DIMENSIONING AND TOLERANCING PER ASME Y14.5-2009

FIGURE 5 - OPTIONAL SEAL CONFIGURATION, ENLARGED SECTION, TYPICAL FOR ALL SIZES

TABLE 1A - DIMENSIONS IN INCHES

MS PART NO.	NOMINAL TUBE OD REF.	ØA	B	ØC	ØD	E ±.008	ØF ±.015	G	ØH +.010 -.005	J RAD.	K RAD.
MS27196 -12	3/4	.669	1.594	1.635	1.250	.092	.953	1.156	.205	.219	.219
MS27196 -12-16	3/4	.669	1.750	1.856	1.500	.092	1.203	1.312	.205	.219	.219
MS27196 -16	1	.904	1.750	1.856	1.500	.092	1.203	1.312	.205	.219	.219
MS27196 -16 -24	1	.904	2.375	2.563	2.125	.092	1.734	1.812	.266	.281	.281
MS27196 -20	1 1/4	1.138	2.188	2.342	1.844	.092	1.500	1.656	.266	.266	.266
MS27196 -20 -24	1 1/4	1.138	2.375	2.563	2.125	.092	1.734	1.812	.266	.281	.281
MS27196 -24	1 1/2	1.372	2.375	2.563	2.125	.092	1.734	1.812	.266	.281	.281
MS27196 -32	2	1.841	3.000	3.359	2.750	.092	2.406	2.375	.328	.313	.313
MS27196 -40	2 1/2	2.341	4.000	3.812	3.250*	.092	2.828	-	.328	.375	.375*
MS27196 -48	3	2.841	4.500	4.312	3.750*	.092	3.313	-	.328	.625	.375*
MS27196 -56	3 1/2	3.341	5.563	4.875	-	.092	3.813	-	.328	-	-
MS27196 -64	4	3.841	6.125	5.438	-	.092	4.313	-	.328	-	-

TABLE 1B - DIMENSIONS IN MILLIMETERS

MS PART NO.	NOMINAL TUBE OD REF.	ØA	B	ØC	ØD	E ±0.20	ØF ±.38	G	ØH +.25 -.13	J RAD.	K RAD.
MS27196 -12	3/4	16.99	40.48	41.53	31.75	2.34	24.21	29.36	5.21	5.56	5.56
MS27196 -12 -16	3/4	16.99	44.45	47.14	38.10	2.34	30.56	33.33	5.21	5.56	5.56
MS27196 -16	1	22.96	44.45	47.14	38.10	2.34	30.56	33.33	5.21	5.56	5.56
MS27196-16 -24	1	22.96	60.33	65.10	53.98	2.34	44.05	46.03	6.76	7.14	7.14
MS27196 -20	1 1/4	28.91	55.56	59.49	46.83	2.34	38.10	42.06	6.76	6.75	6.75
MS27196 -20 -24	1 1/4	28.91	60.33	65.10	53.98	2.34	44.05	46.03	6.76	7.14	7.14
MS27196 -24	1 1/2	34.85	60.33	65.10	53.98	2.34	44.05	46.03	6.76	7.14	7.14
MS27196 -32	2	46.76	76.20	85.32	69.85	2.34	61.12	60.33	8.33	7.94	7.94
MS27196 -40	2 1/2	59.46	101.60	96.83	82.55*	2.34	71.83	-	8.33	9.53	9.53*
MS27196 -48	3	72.16	114.30	109.53	95.25*	2.34	84.14	-	8.33	15.88	9.53*
MS27196 -56	3 1/2	84.86	141.29	123.83	-	2.34	96.84	-	8.33	-	-
MS27196 -64	4	97.56	155.58	138.13	-	2.34	109.54	-	8.33	-	-

*SUGGESTED DIMENSIONS FOR "D" AND "K" SIZES -40 THROUGH -48.

	AEROSPACE STANDARD	AS27196 SHEET 3 OF 6	REV. B
	(R) SEAL, BONDED, 302 CORROSION RESISTANT STEEL, AMS5516, MOLD IN GROOVE, FLUOROCARBON RUBBER, AMS7276		

TABLE 2A - TOLERANCES IN INCHES

MS PART NO.	.WWW	.XXX	.YYY	.ZZZ
MS27196 - ALL SIZES	.020	.005	.010	.003

TABLE 2B - TOLERANCES IN MILLIMETERS

MS PART NO.	.WWW	.XXX	.YYY	.ZZZ
MS27196 - ALL SIZES	0.51	0.13	0.25	0.08

TABLE 3A - FIGURE 4 AND FIGURE 5 DIMENSIONS IN INCHES

MS PART NO.	N MIN	P MIN	R	MAXIMUM SEALING SURFACE Ra (μIN)
MS27196 - ALL SIZES	.050	.060	.020	63

TABLE 3B - FIGURE 4 AND FIGURE 5 DIMENSIONS IN MILLIMETERS

MS PART NO.	N MIN	P MIN	R	MAXIMUM SEALING SURFACE Ra (μm)
MS27196 - ALL SIZES	1.27	1.52	0.51	1.6

APPLICATION:

THESE PRODUCTS HAVE BEEN USED TYPICALLY AT TEMPERATURES FROM -65 °F (-54 °C) TO +400 °F (+204 °C) WHERE RESISTANCE TO SYNTHETIC OIL OR FUEL IS REQUIRED.

APPLICABLE REFERENCES:

SAE PUBLICATIONS:

AVAILABLE FROM SAE INTERNATIONAL, 400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096-0001, TEL: 877-606-7323 (INSIDE USA AND CANADA) OR 724-776-4970 (OUTSIDE USA), www.sae.org.

AMS2817 PACKAGING AND IDENTIFICATION PREFORMED PACKINGS

AMS5516 STEEL, CORROSION-RESISTANT, SHEET, STRIP, AND PLATE 18Cr-9.0Ni (SAE 30302) SOLUTION HEAT TREATED

AMS7276 RUBBER: FLUOROCARBON (FKM) HIGH-TEMPERATURE-FLUID RESISTANT LOW COMPRESSION SET FOR SEALS IN FUEL SYSTEMS AND SPECIFIC ENGINE OIL SYSTEMS

AS478 IDENTIFICATION MARKING METHODS

ARP5316 STORAGE OF ELASTOMER SEALS AND SEAL ASSEMBLIES WHICH INCLUDE AN ELASTOMER ELEMENT PRIOR TO HARDWARE ASSEMBLY

AS5752 AEROSPACE - VISUAL INSPECTION STANDARD FOR ELASTOMERIC SEALING ELEMENTS OTHER THAN O-RINGS

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

	AEROSPACE STANDARD	AS27196 SHEET 4 OF 6	REV. B
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