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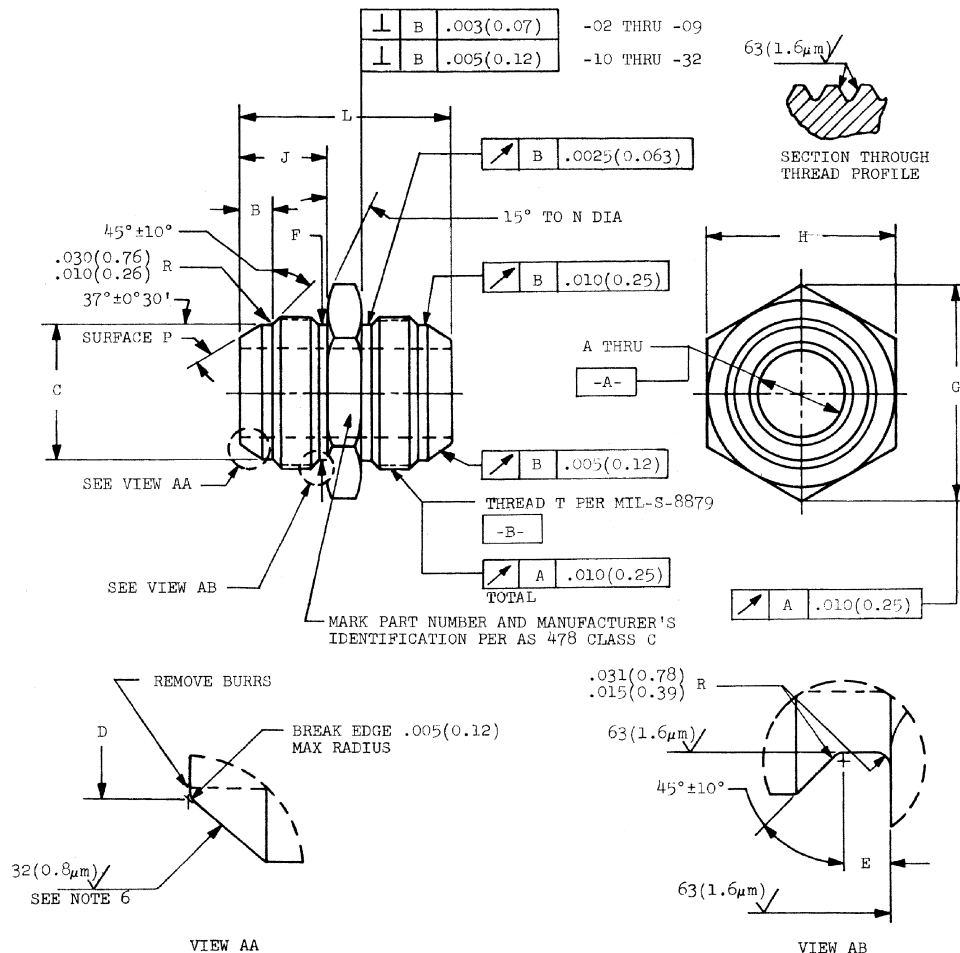
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AS3166

RATIONALE

FEDERAL SUPPLY CLASS

AS3166 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

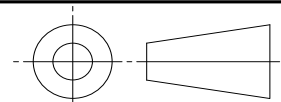


1. MATERIAL: CORROSION AND HEAT RESISTANT STEEL AMS 5646.
2. CLEANING: FINISHED PARTS SHALL BE DEGREASED AND IMMERSUED FOR NOT LESS THAN 20 MINUTES IN A SOLUTION OF 1 VOLUME OF NITRIC ACID WITH SP GR 1.42 AND 9 VOLUMES OF WATER AT ROOM TEMPERATURE.
3. SURFACE TEXTURE: ANSI B46.1-1962. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES (3.1 MICROMETRES) EXCEPT HEXAGON FLATS.
4. BREAK SHARP EDGES .003-.015 (0.08-0.38) UNLESS OTHERWISE SPECIFIED.
5. DIMENSIONS IN INCHES (MILLIMETRES). METRIC CONVERSIONS ARE INTERNATIONAL SYSTEM UNITS (SI). UNLESS OTHERWISE SPECIFIED, TOLERANCE FOR ANGULAR DIMENSIONS $\pm 5^\circ$.
6. CONICAL SURFACE P SHALL BE FREE OF NICKS, CHATTER MARKS OR LOW SPOTS. UNBROKEN LINE OF CONTACT TO SHOW ALL AROUND AT OTHER THAN EXTREMITIES OF SURFACE P WHEN ROTATED IN CONTACT WITH $74^\circ 0' \pm 0^\circ 1'$ INCLUDED ANGLE GAGE LIGHTLY COATED BY RUBBING WITH CARBON PAPER.
7. FORM TOLERANCES AND RELATED DATUMS ARE RFS.
8. DIMENSIONS AND GEOMETRIC TOLERANCES APPLY TO BOTH ENDS.
9. DIMENSIONING AND TOLERANCING: ANSI Y14.5-1973.
10. DO NOT USE UNASSIGNED PART NUMBERS.

PREPARED BY SAE COMMITTEE E-25, GENERAL STANDARDS FOR AEROSPACE PROPULSION SYSTEMS

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS3166>

THIRD ANGLE PROJECTION



CUSTODIAN: E-25



AEROSPACE STANDARD

UNION, TUBE - CRES AMS 5646,
CONICAL END, CONNECTOR

AS3166
SHEET 1 OF 3

Documents

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PART NO.	NOM TUBE OD		THREAD T	A DIA		B	
	INCH	mm		INCH	mm	INCH	mm
AS3166-02	.125	3.18	.3125-24 UNJF-3A	.058- .065	1.48- 1.65	.144-.159	3.66- 4.03
AS3166-03	.188	4.78	.375-24 UNJF-3A	.121- .128	3.08- 3.25	.144-.159	3.66 4.03
AS3166-04	.250	6.35	.4375-20 UNJF-3A	.168- .175	4.27- 4.44	.160-.175	4.07- 4.44
AS3166-05	.312	7.92	.500-20 UNJF-3A	.230- .237	5.85- 6.01	.160-.175	4.07- 4.44
AS3166-06	.375	9.52	.5625-18 UNJF-3A	.293- .301	7.45- 7.64	.165-.180	4.20- 4.57
AS3166-07	.438	11.13	.625-18 UNJF-3A	.355- .363	9.02- 9.22	.165-.180	4.20- 4.57
AS3166-08	.500	12.70	.750-16 UNJF-3A	.387- .395	9.83-10.03	.229-.244	5.82- 6.19
AS3166-09	.562	14.27	.8125-16 UNJ-3A	.434- .442	11.03-11.22	.229-.244	5.82- 6.19
AS3166-10	.625	15.88	.875-14 UNJF-3A	.480- .488	12.20-12.39	.255-.270	6.48- 6.85
AS3166-11	.688	17.48	1.000-12 UNJF-3A	.542- .552	13.77-14.02	.304-.319	7.73- 8.10
AS3166-12	.750	19.05	1.0625-12 UNJ-3A	.604- .614	15.35-15.59	.304-.319	7.73- 8.10
AS3166-14	.875	22.22	1.1875-12 UNJ-3A	.729- .739	18.52-18.77	.304-.319	7.73- 8.10
AS3166-16	1.000	25.40	1.3125-12 UNJ-3A	.839- .851	21.32-21.61	.312-.327	7.93- 8.30
AS3166-18	1.125	28.58	1.500-12 UNJF-3A	.948- .960	24.08-24.38	.312-.327	7.93- 8.30
AS3166-20	1.250	31.75	1.625-12 UNJ-3A	1.073-1.086	27.26-27.58	.363-.378	9.23- 9.60
AS3166-24	1.500	38.10	1.875-12 UNJ-3A	1.307-1.320	33.20-33.53	.374-.389	9.50- 9.88
AS3166-28	1.750	44.45	2.250-12 UNJ-3A	1.542-1.557	39.17-39.54	.447-.462	11.36-11.73
AS3166-32	2.000	50.80	2.500-12 UNJ-3A	1.776-1.791	45.12-45.49	.457-.472	11.61-11.98

PART NO.	C DIA		D DIA		E	
	INCH	mm	INCH	mm	INCH	mm
AS3166-02	.235- .245	5.97- 6.22	.129- .135	3.28- 3.42	.063-.078	1.61-1.98
AS3166-03	.297- .307	7.55- 7.79	.192- .198	4.88- 5.02	.063-.078	1.61-1.98
AS3166-04	.349- .359	8.87- 9.11	.239- .245	6.08- 6.22	.075-.090	1.91-2.28
AS3166-05	.411- .421	10.44-10.69	.301- .307	7.65- 7.79	.075-.090	1.91-2.28
AS3166-06	.466- .476	11.84-12.09	.365- .371	9.28- 9.42	.083-.098	2.11-2.48
AS3166-07	.529- .539	13.44-13.69	.427- .433	10.85-10.99	.083-.098	2.11-2.48
AS3166-08	.644- .654	16.36-16.61	.459- .465	11.66-11.81	.094-.109	2.39-2.76
AS3166-09	.706- .716	17.94-18.18	.506- .512	12.86-13.00	.094-.109	2.39-2.76
AS3166-10	.757- .767	19.23-19.48	.552- .558	14.03-14.17	.107-.122	2.72-3.09
AS3166-11	.865- .875	21.98-22.22	.616- .622	15.65-15.79	.125-.140	3.18-3.55
AS3166-12	.928- .938	23.58-23.82	.678- .684	17.23-17.37	.125-.140	3.18-3.55
AS3166-14	1.052-1.062	26.73-26.97	.803- .809	20.40-20.54	.125-.140	3.18-3.55
AS3166-16	1.178-1.188	29.93-30.17	.915- .921	23.25-23.39	.125-.140	3.18-3.55
AS3166-18	1.365-1.375	34.68-34.92	1.024-1.030	26.01-26.16	.125-.140	3.18-3.55
AS3166-20	1.490-1.500	37.84-38.10	1.150-1.156	29.21-29.36	.125-.140	3.18-3.55
AS3166-24	1.740-1.750	44.20-44.45	1.384-1.390	35.16-35.30	.125-.140	3.18-3.55
AS3166-28	2.115-2.125	53.73-53.97	1.649-1.655	41.89-42.03	.125-.140	3.18-3.55
AS3166-32	2.365-2.375	60.08-60.32	1.883-1.889	47.83-47.98	.125-.140	3.18-3.55