

MA2289

RATIONALE

FEDERAL SUPPLY CLASS
4730

MA2289 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

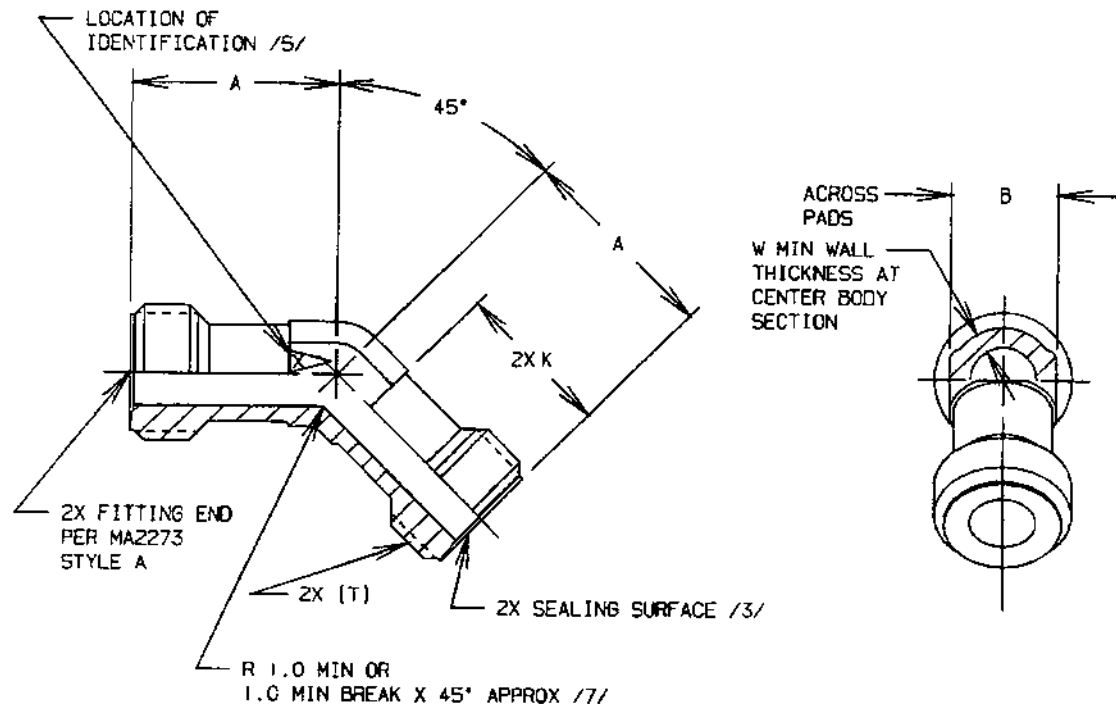


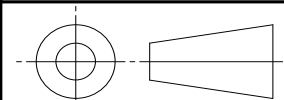
FIGURE 1 - ELBOW, 45°, BEAM SEAL

TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. MA2289 /15/ SIZE CODE	(NOMINAL TUBE SIZE DN) /1/	T PER MA1370 (ISO 5855/3) 4g 6g	A	B	K	W	kg/EA MAX TI
05	5	MJ 10 X 1	16.3	7.50- 8.06	12.1	1.0	.00500
06	6	MJ 12 X 1.25	17.8	8.50- 9.06	13.4	1.1	.00750
08	8	MJ 14 X 1.5	20.8	10.50-11.06	16.0	1.2	.0118
10	10	MJ 16 X 1.5	21.8	12.40-13.06	16.6	1.2	.0152
12	12	MJ 18 X 1.5	23.8	14.4 -15.1	18.2	1.3	.0196
14	14	MJ 20 X 1.5	23.8	15.4 -16.1	19.6	1.4	.0239
16	16	MJ 22 X 1.5	25.8	17.4 -18.1	19.6	1.4	.0306
18	18	MJ 24 X 1.5	27.8	20.4 -21.1	20.9	1.4	.0386
20	20	MJ 27 X 1.5	27.8	23.4 -24.1	20.3	1.6	.0495
22	22	MJ 30 X 1.5	30.8	26.4 -27.1	22.7	1.7	.0640
25	25	MJ 33 X 1.5	32.8	29.4 -30.1	24.1	2.3	.0860
28	28	MJ 36 X 1.5	34.8	33.2 -34.1	25.3	2.3	.105
32	32	MJ 39 X 1.5	36.4	35.2 -36.2	26.4	2.4	.113

SAE values your input. To provide feedback
on this Technical Report, please visit
<http://www.sae.org/technical/standards/MA2289>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B /9/

PROCUREMENT SPECIFICATION: /4/ MA2005 (ISO 7169)



AEROSPACE STANDARD

FITTING, ELBOW, 45°, BEAM SEAL,
METRIC

MA2289
SHEET 1 OF 2

Documents

Copyright 2015 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Fax: 724-776-0790

Tel: +1 724-776-4970 (outside USA)
Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

NOTES:

- /1/ DN = NOMINAL TUBE OUTSIDE DIAMETER.
- /2/ MATERIAL: CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS 4965.
- /3/ FINISH: NONE. APPLY DRY FILM LUBRICANT PER MIL-L-46010, TYPE I TO SEALING SURFACE. OVERSPRAY IN BORE IS NOT PERMITTED.
- /4/ THIS PART SHALL BE QUALIFIED TO THE PROCUREMENT SPECIFICATION AS APPLICABLE IN A COMPLETE ASSEMBLY. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.
- /5/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B.
 - a. FOR SIZES DN10 AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, MATERIAL CODE LETTER AND PRESSURE RATING (EXAMPLE: 28K = 28,000 kPa).
 - b. FOR SIZES DN12 AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER, MATERIAL CODE LETTER AND PRESSURE RATING (EXAMPLE: 28K = 28,000 kPa).
- 6. THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH OPERATING PRESSURES AS FOLLOWS:
 - a. SIZES DN05 THROUGH DN28 AT 28,000 kPa
 - b. SIZE DN32 AT 14,000 kPa
- /7/ RADIUS OR BREAK APPLICABLE FOR TITANIUM PARTS ONLY.
- 8. WHEN MACHINED FROM BAR OR OVERSIZE FORGING, THE CENTER BODY SECTION SHALL CONFORM TO MA2023, TABLE 3.
- /9/ REVISIONS OF THIS STANDARD SHALL BE COORDINATED WITH SAE COMMITTEE E-25.
- 10. INTERPRETATION OF DRAWING PER MAP4296.
- 11. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36; REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 3.2 μm Ra. FORGED SURFACES MAY BE 6.3 μm .
- 12. BREAK EDGES 0.1 TO 0.4 UNLESS OTHERWISE SPECIFIED.
- 13. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
- 14. DIMENSIONS IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ± 0.2 , ANGULAR DIMENSIONS $\pm 0^\circ 30'$.
- /15/ EXAMPLE OF PART NUMBER: MA2289 T 08

BASIC PART NUMBER

MATERIAL CODE LETTER /2/

SIZE CODE, TUBE SIZE
IN MILLIMETERS