

NATO UNCLASSIFIED

**NORTH ATLANTIC TREATY ORGANIZATION  
ORGANISATION DU TRAITE DE L'ATLANTIQUE NORD**

**MILITARY AGENCY FOR STANDARDIZATION (MAS)  
BUREAU MILITAIRE DE STANDARDISATION (BMS)**

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AIR BOARD

MAS(AIR)(75)282

27 November 1975

Original English/French translation

To : Distribution List Air B (see overleaf)

Subject : STANAG 3312 ASP (EDITION NO.4) - PROFILE DIMENSIONS OF FLANGES  
FOR V-BAND COUPLINGS FOR PIPING AND DUCTING

References: a. MAS(AIR)(68)83 dated 27 June 1968 (Edition No.3)  
b. MAS(AIR)(75)64 dated 21 March 1975 (2nd Draft Edition No.4)

Enclosure : STANAG 3312 (Edition No.4)

1. Enclosed is a copy of a NATO Standardization Agreement which has been ratified by nations as reflected in page iii.
2. The references listed above should now be destroyed in accordance with local document destruction procedures. AAP-4(Q) should be amended to reflect the latest status of the STANAG.
3. Changes from Edition No.3 are indicated by black lines in the right margin.

ACTION BY NATIONAL STAFFS

4. National staffs are requested to examine page iii of the enclosure and, if they have not already done so, to advise the Air Board MAS, through their Board member, of their intention regarding ratification and implementation of the agreement including actual dates of implementation (where applicable).

(W.C. LEONARD)  
Major-General, Canadian Forces,  
Chairman, MAS

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STANAG No. 3312  
(Edition No. 4)

NORTH ATLANTIC TREATY ORGANIZATION  
(NATO)



MILITARY AGENCY FOR STANDARDIZATION  
(MAS)

# STANDARDIZATION AGREEMENT


SUBJECT: PROFILE DIMENSIONS OF FLANGES FOR V-BAND COUPLINGS  
FOR PIPING AND DUCTING

Promulgated on 27 November 1975

A handwritten signature in dark ink, appearing to read 'W. Leonard'.

(W. C. LEONARD)  
Major-General, Canadian Forces,  
Chairman, MAS

RECORD OF AMENDMENTS

Amdt. No.	Reference and date of amendment	Date entered	By whom entered - Signature and Rank	Remarks
1-7		5.4.05		

EXPLANATORY NOTESAGREEMENT

1. This NATO Standardization Agreement (STANAG) is promulgated by the Chairman MAS under the authority vested in him by the NATO Military Committee.
2. No departure may be made from the agreement without consultation with MAS. Nations may propose alterations at any time should they consider that the original has become obsolete or requires improvement. Such proposals should be submitted to MAS where they are processed in the same manner as the original agreement.
3. Ratifying nations have agreed that national orders, manuals and instructions implementing this STANAG will include a reference to the STANAG number for purposes of identification.

DEFINITIONS

4. Ratification is 'The declaration by which a nation formally accepts the content of this Standardization Agreement'.
5. Implementation is 'The fulfilment by a nation's forces concerned of their obligations under this Standardization Agreement'.

RATIFICATION, IMPLEMENTATION AND RESERVATIONS

6. Page iii gives details of the state of ratification and implementation of this agreement by the NATO nations. If no details are shown in the 'ratification' and 'implementation' columns, it signifies that the nation has not yet notified MAS of its intentions: the appropriate Ministry of Defence is requested to do so as soon as possible.
7. Page iv (and page v, etc. if necessary) gives details of any reservations and proprietary rights that have been stated by nations.
8. If an amendment of substance or a new edition (other than an editorially amended edition) is promulgated, all previous ratification, implementation and reservation/restriction details are deleted from pages iii and iv and the amendment or new edition is processed in the same manner as the original agreement.

Agreed English/French texts

STANAG 3312  
(Edition 4)

NAVY/ARMY/AIR

NATO STANDARDIZATION AGREEMENT  
(STANAG)

PROFILE DIMENSIONS OF FLANGES FOR V-BAND COUPLINGS  
FOR PIPING AND DUCTING

- Annexes: A. Figure A-1 Light Weight Flange Profile  
B. Figure B-1 Medium Weight Flange Profile  
C. Figure C-1 Alternate Medium Weight Flange Profile  
D. Figure D-1 Heavy Weight Flange Profile

Related Documents: ISO 2563 - Aircraft Ducting and Piping - Profile Dimensions  
for Flanges and V-Band Couplings

AIM

1. The aim of this agreement is to standardize on the profile dimensions of flanges for use with V-band couplings for aerospace piping and ducting, and the equipment connected thereto, and to establish ranges of flange diameters, so as to permit interchangeability of V-band couplings.

AGREEMENT

2. Participants agree that:

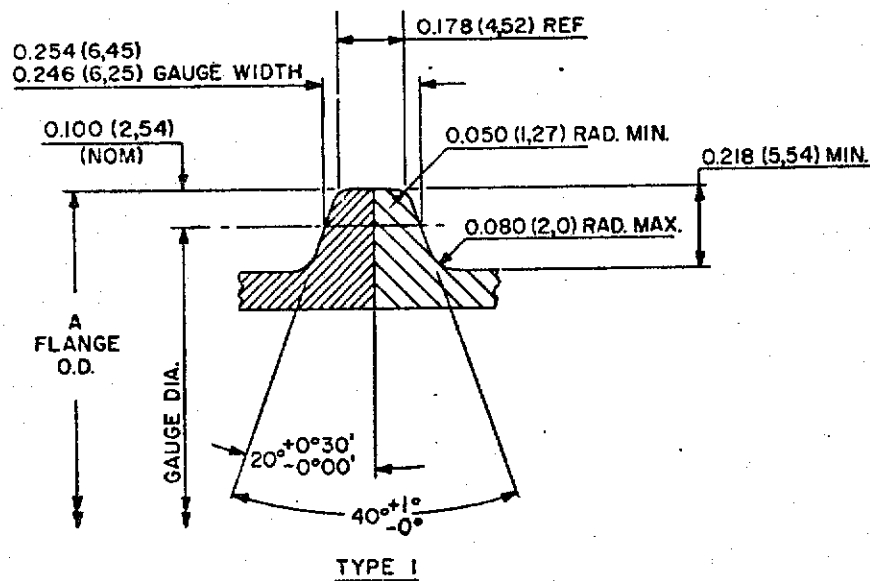
- a. Flanges for use with V-band couplings for aerospace piping and ducting shall be selected from the profile dimensions shown on Figures A-1, B-1, C-1 and D-1 of Annexes A, B, C, and D of this agreement.
- b. The bands shall be designed to suit one or more of these profiles. The bands for flanges of Types 2A and 2B shall be suitable for use with either flange type or a combination of both. The bands for flanges of Types 3A and 3B shall be suitable for use with either flange type or a combination of both.
- c. The internal diameter of the flange profiles may be designed to suit a particular application, whether in inch or metric units, provided the flange external profiles conform to the dimensions shown herein. The internal design of the flange profile may be at the discretion of the designer.

Amendment 2

- d. If it is found essential by any country to use, for any of the applications mentioned in paragraph 1, sizes and types of flanges not shown in Annexes A, B, C, and D, the new items are to be coordinated with the other countries as soon as possible.

IMPLEMENTATION OF THE AGREEMENT

3. This STANAG is implemented when orders or instructions are issued requiring all future manufacture, and all future editions of appropriate technical manuals, or all orders for newly designed material to be produced or ordered in accordance with this agreement.



STANDARD RANGE	
DIMENSION A FLANGE O.D.	
IN. ± 0.010	mm ± 0,25
1.510	38,35
1.760	44,70
2.010	51,05
2.260	57,40
2.510	63,75
2.760	70,10
3.010	76,45
3.260	82,80
3.510	89,15
3.760	95,50
4.010	101,85
4.510	114,55
5.010	127,25

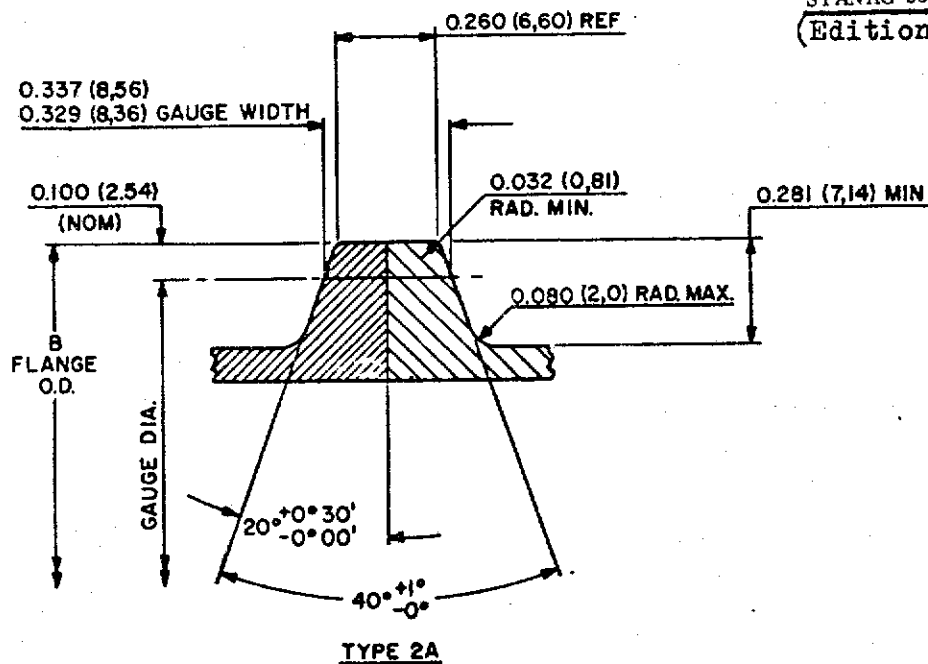
NOTE:-GAUGE DIA. = NOMINAL FLANGE  
O.D. - 0.200 (5,08)

Dimensions in inches; mm conversions in brackets

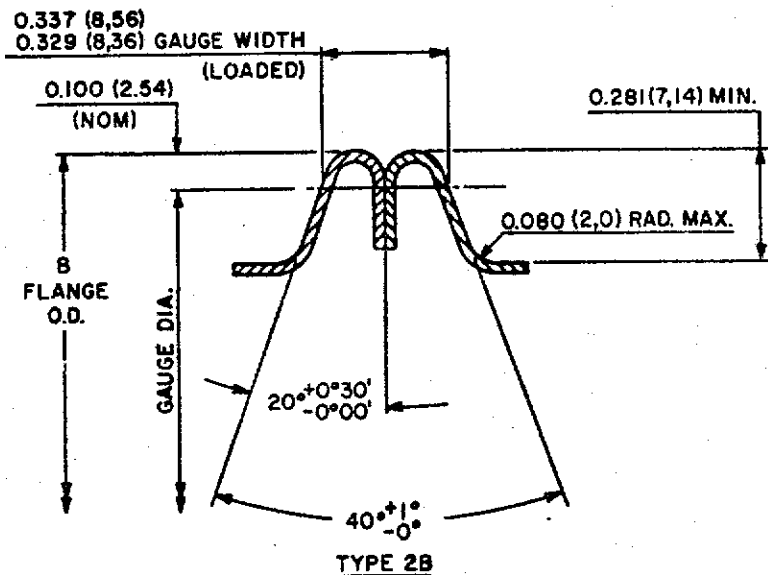
Figure A-1 - LIGHT WEIGHT FLANGE PROFILE

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ANNEX B TO  
STANAG 3312  
(Edition No. 4)



STANDARD RANGE	
DIMENSION B FLANGE O.D.	
IN. ±0.010	mm ±0,25
1.750	44,45
2.000	50,80
2.250	57,15
2.500	63,50
2.750	69,85
3.000	76,20
3.250	82,55
3.500	88,90
3.750	95,25
4.000	101,60
4.250	107,95
4.750	120,65
5.250	133,35
5.750	146,05
6.250	158,75
6.750	171,45
7.250	184,15
7.750	196,85
8.250	209,55
8.750	222,25



NOTE: GAUGE DIA. = NOMINAL FLANGE  
O.D.-0.200 (5,08)

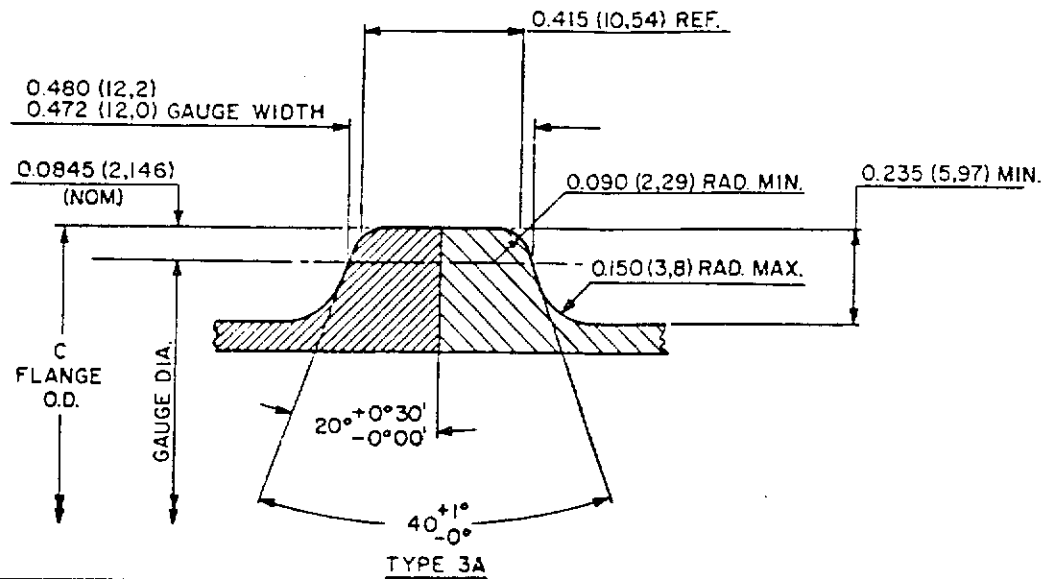
Dimensions in inches; mm conversions in brackets

Figure B-1 - MEDIUM WEIGHT FLANGE PROFILE

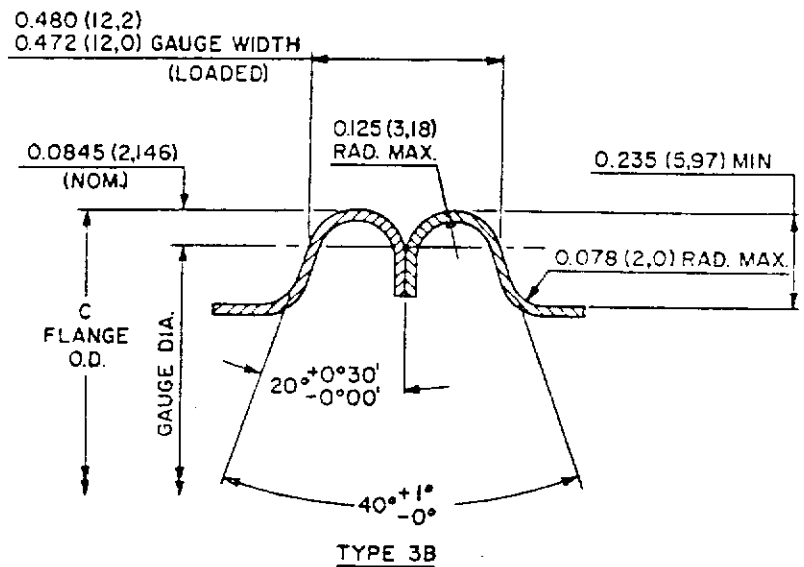
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ANNEX C TO  
STANAG 3312  
(Edition 4)



STANDARD RANGE	
DIMENSION C	
FLANGE O.D.	
IN. ±0.010	mm ±0.25
1.552	39.42
1.802	45.77
2.122	53.90
2.362	59.99
2.622	66.60
2.886	73.30
3.136	79.65
3.386	86.00
3.636	92.35
3.886	98.70
4.131	104.93
4.391	111.53
4.641	117.88
5.141	130.58
5.641	143.28
6.141	155.98
6.641	168.68
7.141	181.38
7.641	194.08
8.141	206.78
8.641	219.48



NOTE: GAUGE DIA. = NOMINAL FLANGE  
O.D.-0.1690 (4.23)

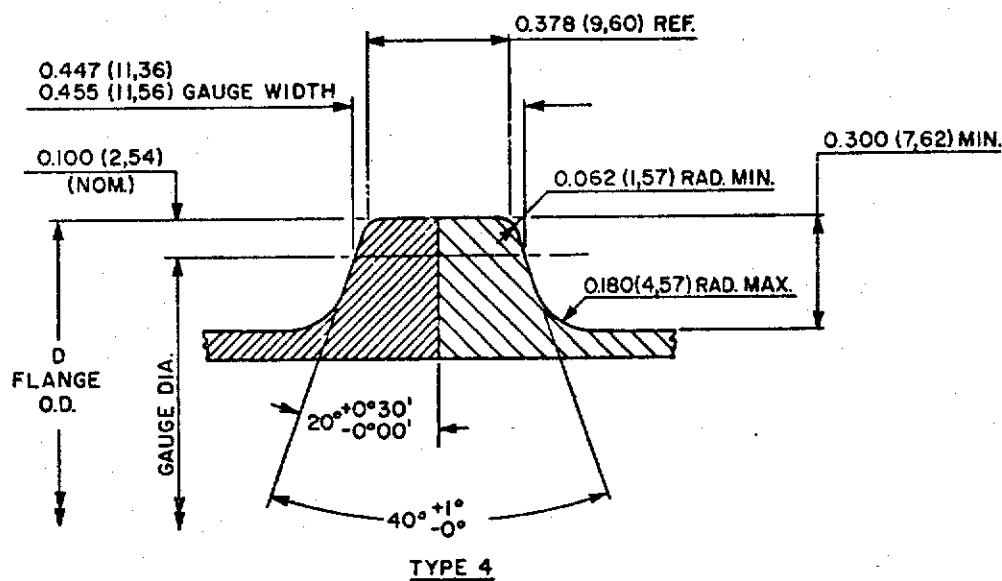
Dimensions in inches; mm conversions in brackets

FIGURE C-1 - ALTERNATE MEDIUM WEIGHT FLANGE PROFILE



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ANNEX D TO  
STANAG 3312  
(Edition No. 4)



STANDARD RANGE	
DIMENSION D FLANGE O.D.	
IN. ± 0.010	mm ± 0,25
9.428	239,47
9.928	252,17
10.428	264,87
10.928	277,57
11.428	290,27
11.928	302,97
12.428	315,67
12.928	328,37
13.428	341,07
13.928	353,77
14.428	366,47
14.928	379,17

NOTE: - GAUGE DIA. = NOMINAL FLANGE  
O.D. - 0.200 (5,08)

Dimensions in inches; mm conversions in brackets

Figure D-1- HEAVY WEIGHT FLANGE PROFILE

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