INTERNATIONAL STANDARD

ISO 2563

Second edition
2009-09-01

Aircraft ducting and piping — Profile dimensions for flanges of V-band couplings

Canalisations et tuyauteries à bord des aéronefs — Dimensions d'encombrement des brides à section en V pour raccords

Reference number
ISO 2563:2009(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 2563 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 10, *Aerospace fluid systems and components*.

This second edition cancels and replaces the first edition (ISO 2563:1974), which has been technically revised.

Aircraft ducting and piping — Profile dimensions for flanges of V-band couplings

1 Scope

This International Standard gives the profile dimensions of V-band couplings, and the associated inch-based aircraft ducting and piping for the following external flange profiles:

— lightweight solid profile;

— medium-weight solid profile;

— heavyweight solid profile;

— narrow sheet metal profile;

— wide sheet metal profile;

— wide solid profile;

— wide sheet metal to solid profile.

2 Dimensions

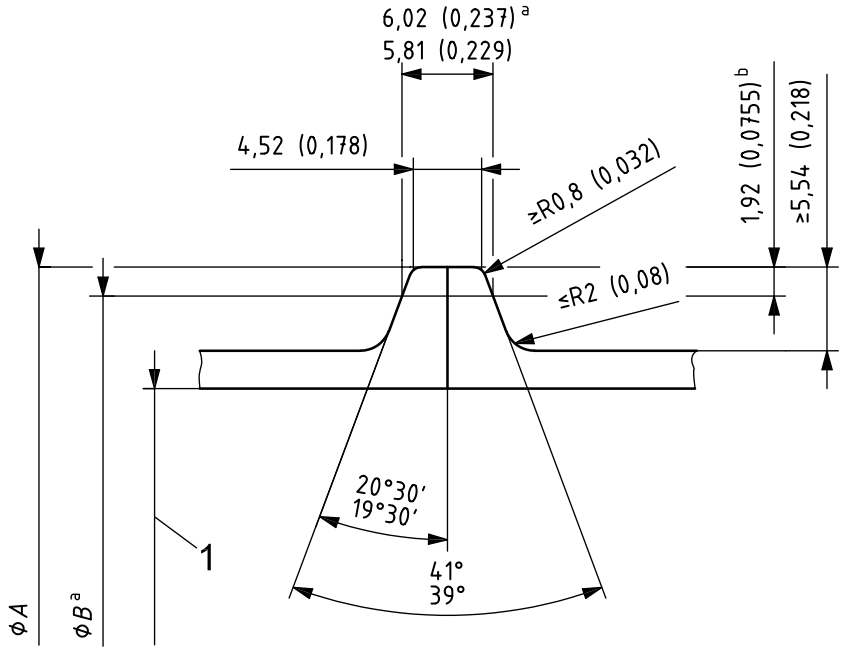
2.1 The profile dimensions of a mating pair of flanges of V-band couplings shall comply with Figures 1 to 7, in accordance with the type of coupling required for the application. The dimensions are given in millimetres, with inch equivalents in parentheses.

2.2 The design of joints is at the discretion of the user, but the joint design shall remain within the range of the profiles given in this International Standard.

2.3 Flange halves are illustrated as being identical in the figures, but at the discretion of the user, the flange faces can be asymmetric, allowing the creation of locating spigots and recesses or other locating features, within the boundaries of the overall definition. The narrow and wide sheet metal flanges are identical. The single wide sheet metal profile flange shown in Figure 7 should be mated with a single solid profile flange shown in Figure 6.

2.4 The single flange end shown in Figure 7 may be machined on a pump or valve, which mates with ducting.

Dimensions in millimetres (inches)



Key

1 tube outside diameter

a Gauge.

b Nominal.

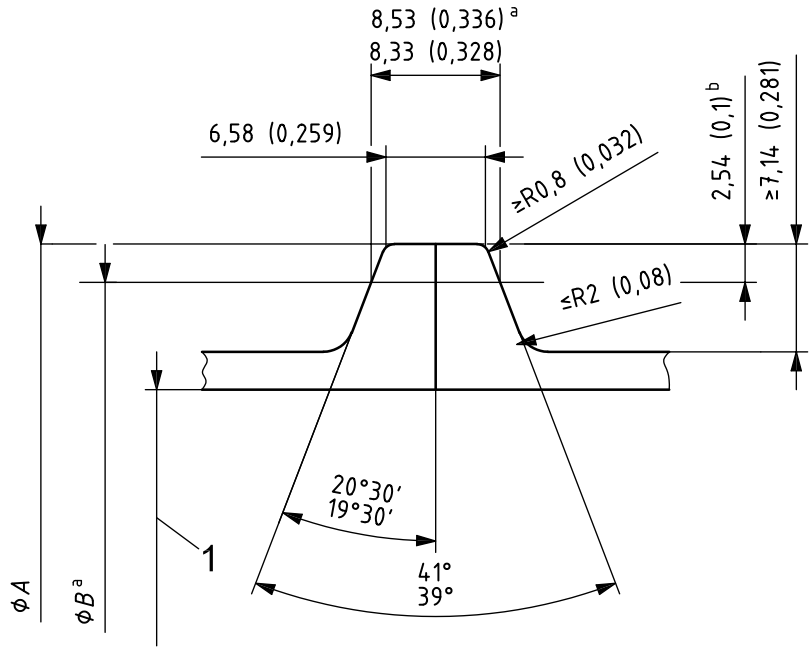
Figure 1 — Lightweight solid flange profile

Table 1 — Dimensions for lightweight solid flange

Tube outside diameter DN [a]	Ø A ± 0,25 (0,010)		Ø B	
	mm	in	mm	in
1.000	38,35	1,510	34,52	1,359
1.250	44,70	1,760	40,87	1,609
1.500	51,05	2,010	47,22	1,859
1.750	57,40	2,260	53,57	2,109
2.000	63,75	2,510	59,92	2,359
2.250	70,10	2,760	66,27	2,609
2.500	76,45	3,010	72,62	2,859
2.750	82,80	3,260	78,97	3,109
3.000	89,15	3,510	85,32	3,359
3.250	95,50	3,760	91,67	3,609
3.500	101,85	4,010	98,02	3,859
4.000	114,55	4,510	110,72	4,359
4.500	127,25	5,010	123,42	4,859
5.000	139,95	5,510	136,12	5,359
5.500	152,65	6,010	148,82	5,859
6.000	165,35	6,510	161,52	6,359
6.500	178,05	7,010	174,22	6,859
7.000	190,75	7,510	186,92	7,359
7.500	203,45	8,010	199,62	7,859
8.000	216,15	8,510	212,32	8,359

[a] Nominal size; corresponds to tube outside diameter, in inches.

Dimensions in millimetres (inches)



Key

1 tube outside diameter

a Gauge.

b Nominal.

Figure 2 — Medium-weight solid flange profile

Table 2 — Dimensions for medium-weight solid flange

Tube outside diameter DN [a]	Ø A ± 0,25 (0,010)		Ø B	
	mm	in	mm	in
1.000	44,45	1,750	39,37	1,550
1.250	50,80	2,000	45,72	1,800
1.500	57,15	2,250	52,07	2,050
1.750	63,50	2,500	58,42	2,300
2.000	69,85	2,750	64,77	2,550
2.250	76,20	3,000	71,12	2,800
2.500	82,55	3,250	77,47	3,050
2.750	88,90	3,500	83,82	3,300
3.000	95,25	3,750	90,17	3,550
3.250	101,60	4,000	96,52	3,800
3.500	107,95	4,250	102,87	4,050
4.000	120,65	4,750	115,57	4,550
4.500	133,35	5,250	128,27	5,050
5.000	146,05	5,750	140,97	5,550
5.500	158,75	6,250	153,67	6,050
6.000	171,45	6,750	166,37	6,550
6.500	184,15	7,250	179,07	7,050
7.000	196,85	7,750	191,77	7,550
7.500	209,55	8,250	204,47	8,050
8.000	222,25	8,750	217,17	8,550

[a] Nominal size; corresponds to tube outside diameter, in inches.