INTERNATIONAL STANDARD

ISO 9256

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Aerospace — Bolts, large hexagonal head, normal or pitch diameter shank, long length MJ threads, metallic material, coated or uncoated, strength classes less than or equal to 1 100 MPa — Dimensions

Aéronautique et espace — Vis à tête hexagonale large, avec tige normale ou de diamètre égal au diamètre sur flancs, et filetage MJ long, en matériau métallique, revêtues ou non revêtues, des classes de résistance inférieures ou égales à 1 100 MPa — *Dimensions*

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.

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.

International Standard ISO 9256 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Sub-Committee SC 4, *Aerospace fastener systems*.

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Aerospace — Bolts, large hexagonal head, normal or pitch diameter shank, long length MJ threads, metallic material, coated or uncoated, strength classes less than or equal to 1 100 MPa — Dimensions

1 Scope

This International Standard specifies the dimensions of large hexagonal head bolts, with normal or pitch diameter shank, and long length MJ threads, in metallic material, coated or uncoated, with strength classes less than or equal to 1 100 MPa.

It is intended for the drawing up of aerospace product standards.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 286-2:1988, *ISO system of limits and fits — Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts.*

ISO 3353:1992, *Aerospace — Rolled threads for bolts — Lead and runout requirements.*

ISO 5855-2:1988, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts.*

3 Configuration and dimensions

See figures 1 and 2 and table 1. Dimensions and tolerances are expressed in millimetres. They are applicable after any surface coating, but before the application of any lubricant.

Details of form not stated are left to the manufacturer's discretion.

Break sharp edges 0,1 to 0,4

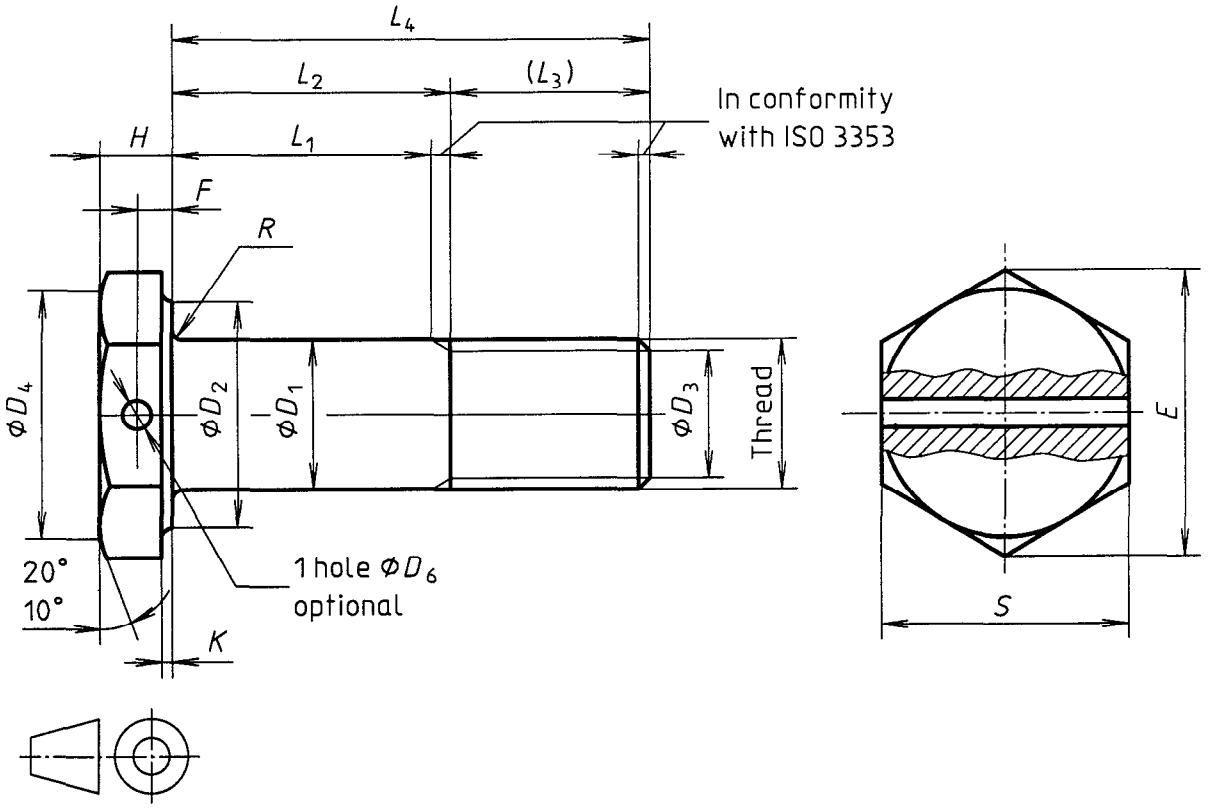
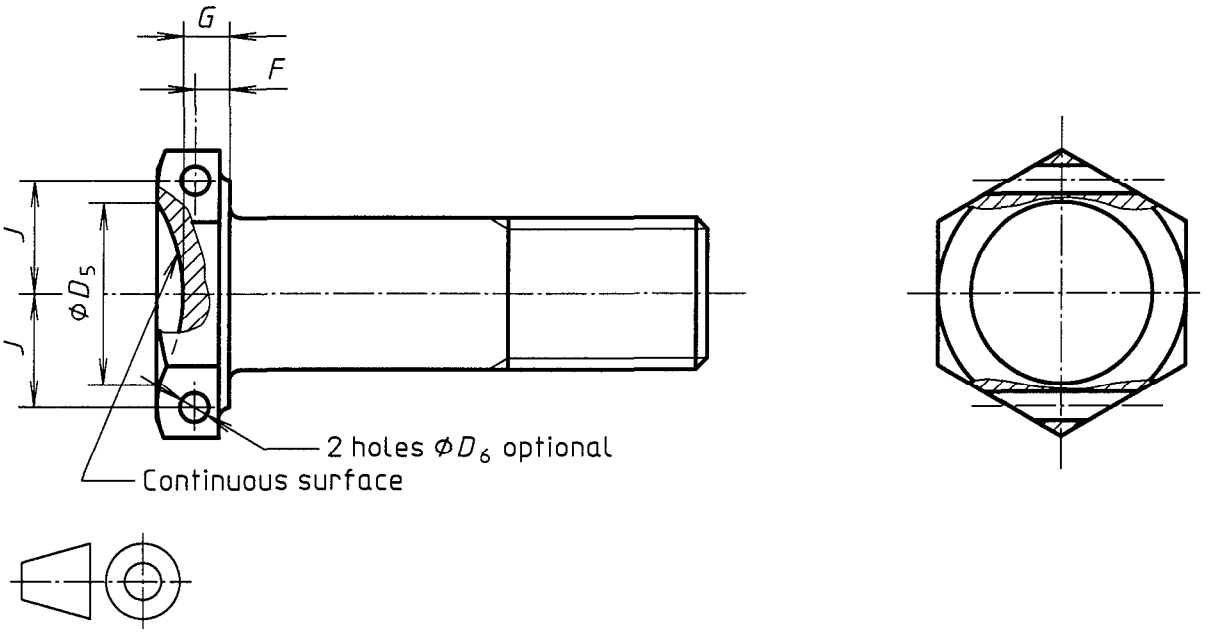


Figure 1 — Configuration for diameter codes 030 and 040

Break sharp edges 0,1 to 0,4



NOTE — For other dimensions, see figure 1.

Figure 2 — Configuration for diameter codes 050 to 080

Table 1

Diameter code	Thread[1]	D_1				D_2[2]	D_3		D_4	D_5	D_6
		normal		pitch diameter							
		nom.	tol.	nom.	tol.	min.	nom.	tol.	min.	$^{0}_{-0,5}$	H13[3]
030	MJ3×0,5 – 4h6h	3	h12[3]	2,68	± 0,13	6,4	2,3	$^{0}_{-0,5}$	6,5	—	1
040	MJ4×0,7 – 4h6h	4		3,54		7,4	3	± 0,5	7,5	—	
050	MJ5×0,8 – 4h6h	5		4,48		8,3	3,4		8,4	5,25	
060	MJ6×1 – 4h6h	6		5,35		10,2	4,2		10,3	6,25	1,4
070	MJ7×1 – 4h6h	7		6,35		11,2	5,2		11,3	7,25	
080	MJ8×1 – 4h6h	8		7,35		13,2	6,2		13,3	8,25	

Diameter code	E min	F	G $^{0}_{-0,3}$	H $^{0}_{-0,3}$	J	K $^{0}_{-0,3}$	L_1[4) 5) 6)] min.	L_2[4) 5) 6)] max.	L_3	L_4[5)] nom	L_4[5)] tol.	R $^{0}_{-0,2}$	S nom.	S tol.
030	7,6	1,55	—	3,4	—	0,5	0,4	2	12	14 to 42	± 0,3	0,4	7	h12[3]
040	8,7	1,8	—	3,9	—				14	16 to 56			8	
050	9,8	1,35	2	3	3,7		0,5	4	16	20 to 70		0,5	9	h13[3]
060	12	1,6	2,3	3,5	4,5		0,7		18	22 to 84		0,7	11	
070	13,2	1,85	2,7	4	4,95				20	24 to 98			12	
080	15,5	2,1	3	4,5	5,8	0,6			22	26 to 112			14	

1) In conformity with ISO 5855-2

2) D_2 max. ⩽ actual S.

3) See ISO 286-2.

4) *First length, corresponding to first L_4 length.*

5) Increments:

2 for $L_4 \leqslant 100$

4 for $L_4 > 100$

If greater lengths are necessary, they shall be chosen using these increments.

6) Conditions L_1 min. and L_2 max. cannot be obtained simultaneously.

UDC 621.882.21:629.7

Descriptors: aircraft industry, aircraft equipment, fasteners, bolts, hexagonal head screws, dimensions, dimensional tolerances.

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