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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Aerospace — MJ threads —

Part 3 :
Limit dimensions for fittings for fluid systems

Aéronautique et espace — Filetage MJ —

Partie 3 : Dimensions limites pour raccordement de systèmes de fluides

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Reference number
ISO 5855-3 : 1988 (E)

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 approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5855-3 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*.

ISO 5855 consists of the following parts, under the general title *Aerospace — MJ threads*:

- *Part 1: General requirements*
- *Part 2: Limit dimensions for bolts and nuts*
- *Part 3: Limit dimensions for fittings for fluid systems*

Aerospace — MJ threads —

Part 3 :

Limit dimensions for fittings for fluid systems

1 Scope

This part of ISO 5855 specifies limit dimensions of MJ threads for fluid systems fittings for aerospace construction.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 5855. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 5855 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 965-1 : 1980, *ISO general purpose metric screw threads — Tolerances — Part 1 : Principles and basic data.*

ISO 5855-1 : 1988, *Aerospace — MJ threads — Part 1 : General requirements.*

3 Nominal diameters and pitches

See table 1.

Table 1 — Nominal diameters and pitches

Dimensions in millimetres

Nominal diameter <i>d</i> or <i>D</i>	Pitch <i>P</i>	Nominal diameter <i>d</i> or <i>D</i>	Pitch <i>P</i>
8	1	27	1,5
10	1	30	1,5
12	1,25	33	1,5
14	1,5	36	1,5
16	1,5	39	1,5
18	1,5	42	2
20	1,5	48	2
22	1,5	50	2
24	1,5		

4 Tolerance classes

See table 2.

Table 2 — Tolerance classes

Assembly	External threads		Internal threads	
	<i>d</i>	6h	<i>D</i> ₁	5H
General case (clearance may be nil)	<i>d</i> ₂	4h	<i>D</i> ₂	4H
	<i>d</i>	6g	<i>D</i> ₁	5H
Requiring systematic clearance	<i>d</i> ₂	4g	<i>D</i> ₂	4H

5 Provisions for coated threads

Before coating, the dimensions of the threads shall be compatible with the thickness of the coating selected and with the limit dimensions for finished parts specified in clause 6.

6 Limit dimensions for finished parts (coated or non-coated)

6.1 External threads

6.1.1 4h6h external threads

Figure 1 illustrates the position and the form of the limit profiles (maximum and minimum) in relation to the basic profile (see ISO 5855-1).

Tables 3 and 4 specify the limit dimensions.

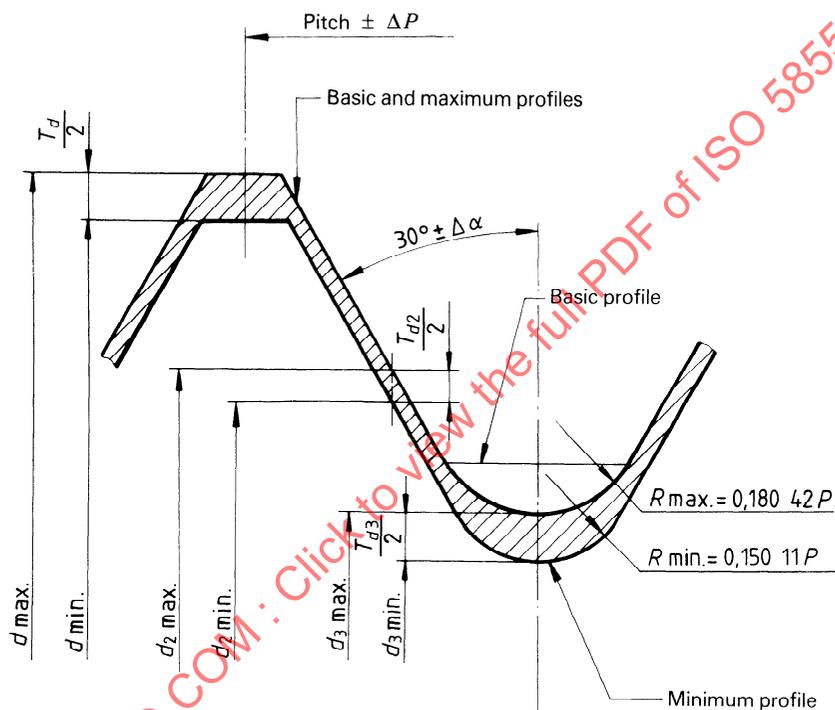


Figure 1 — Limit profiles for external threads (clearance may be nil)

Table 3 — Limit dimensions for 4h6h external threads

Dimensions in millimetres

Thread designation	Major diameter d			Pitch diameter d_2			Minor diameter d_3		
	max.	min.	T_d (6h) ¹⁾	max.	min.	T_{d2} (4h) ¹⁾	max.	min.	T_{d3}
MJ8 × 1 — 4h6h	8	7,82	0,18	7,35	7,279	0,071	6,845	6,713	0,132
MJ10 × 1 — 4h6h	10	9,82	0,18	9,35	9,279	0,071	8,845	8,713	0,132
MJ12 × 1,25 — 4h6h	12	11,788	0,212	11,188	11,103	0,085	10,557	10,396	0,161
MJ14 × 1,5 — 4h6h	14	13,764	0,236	13,026	12,936	0,09	12,268	12,087	0,181
MJ16 × 1,5 — 4h6h	16	15,764	0,236	15,026	14,936	0,09	14,268	14,087	0,181
MJ18 × 1,5 — 4h6h	18	17,764	0,236	17,026	16,936	0,09	16,268	16,087	0,181
MJ20 × 1,5 — 4h6h	20	19,764	0,236	19,026	18,936	0,09	18,268	18,087	0,181
MJ22 × 1,5 — 4h6h	22	21,764	0,236	21,026	20,936	0,09	20,268	20,087	0,181
MJ24 × 1,5 — 4h6h	24	23,764	0,236	23,026	22,931	0,095	22,268	22,082	0,186
MJ27 × 1,5 — 4h6h	27	26,764	0,236	26,026	25,931	0,095	25,268	25,082	0,186
MJ30 × 1,5 — 4h6h	30	29,764	0,236	29,026	28,931	0,095	28,268	28,082	0,186
MJ33 × 1,5 — 4h6h	33	32,764	0,236	32,026	31,931	0,095	31,268	31,082	0,186
MJ36 × 1,5 — 4h6h	36	35,764	0,236	35,026	34,931	0,095	34,268	34,082	0,186
MJ39 × 1,5 — 4h6h	39	38,764	0,236	38,026	37,931	0,095	37,268	37,082	0,186
MJ42 × 2 — 4h6h	42	41,72	0,28	40,701	40,595	0,106	39,691	39,463	0,228
MJ48 × 2 — 4h6h	48	47,72	0,28	46,701	46,589	0,112	45,691	45,457	0,234
MJ50 × 2 — 4h6h	50	49,72	0,28	48,701	48,589	0,112	47,691	47,457	0,234

1) In accordance with ISO 965-1.

Table 4 — Root radii for external threads

Dimensions in millimetres

Pitch P	Root radius R	
	max.	min.
1	0,18	0,15
1,25	0,226	0,188
1,5	0,271	0,225
2	0,361	0,3

6.1.2 4g6g external threads

Figure 2 illustrates the position and the form of the limit profiles (maximum and minimum) in relation to the basic profile (see ISO 5855-1).

Tables 4 and 5 specify the limit dimensions.

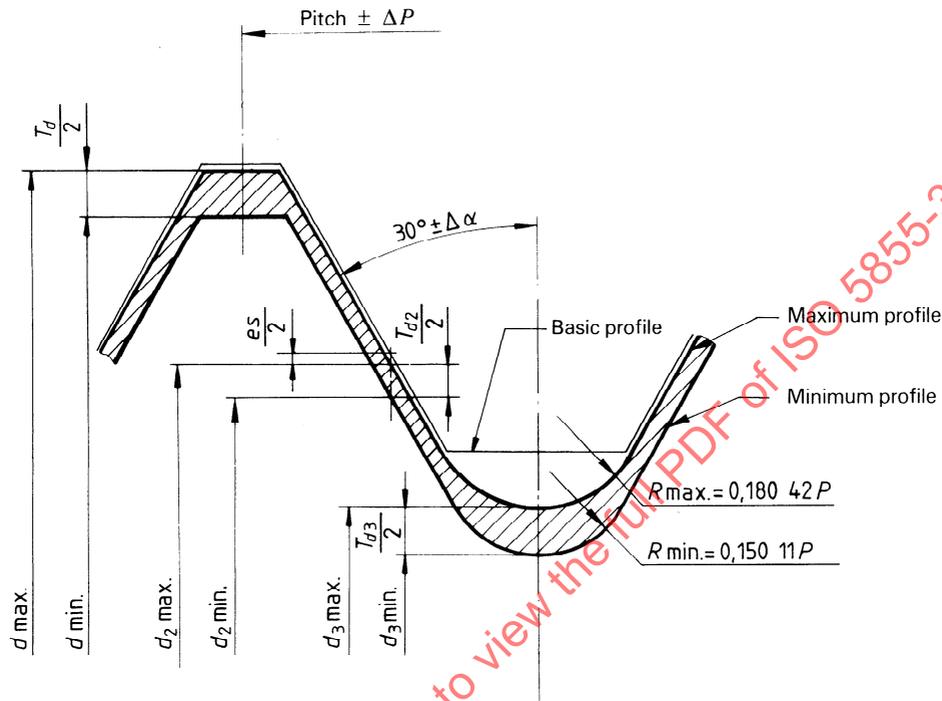


Figure 2 — Limit profiles for external threads (systematic clearance)

Table 5 — Limit dimensions for 4g6g external threads

Dimensions in millimetres

Thread designation	Major diameter <i>d</i>			Pitch diameter <i>d</i> ₂			Minor diameter <i>d</i> ₃		
	max.	min.	<i>T</i> _{<i>d</i>} (6g) ¹⁾	max.	min.	<i>T</i> _{<i>d</i>2} (4g) ¹⁾	max.	min.	<i>T</i> _{<i>d</i>3}
MJ8 × 1 — 4g6g	7,974	7,794	0,18	7,324	7,253	0,071	6,819	6,687	0,132
MJ10 × 1 — 4g6g	9,974	9,794	0,18	9,324	9,253	0,071	8,819	8,687	0,132
MJ12 × 1,25 — 4g6g	11,972	11,76	0,212	11,16	11,075	0,085	10,529	10,368	0,161
MJ14 × 1,5 — 4g6g	13,968	13,732	0,236	12,994	12,904	0,09	12,236	12,055	0,181
MJ16 × 1,5 — 4g6g	15,968	15,732	0,236	14,994	14,904	0,09	14,236	14,055	0,181
MJ18 × 1,5 — 4g6g	17,968	17,732	0,236	16,994	16,904	0,09	16,236	16,055	0,181
MJ20 × 1,5 — 4g6g	19,968	19,732	0,236	18,994	18,904	0,09	18,236	18,055	0,181
MJ22 × 1,5 — 4g6g	21,968	21,732	0,236	20,994	20,904	0,09	20,236	20,055	0,181
MJ24 × 1,5 — 4g6g	23,968	23,732	0,236	22,994	22,899	0,095	22,236	22,05	0,186
MJ27 × 1,5 — 4g6g	26,968	26,732	0,236	25,994	25,899	0,095	25,236	25,05	0,186
MJ30 × 1,5 — 4g6g	29,968	29,732	0,236	28,994	28,899	0,095	28,236	28,05	0,186
MJ33 × 1,5 — 4g6g	32,968	32,732	0,236	31,994	31,899	0,095	31,236	31,05	0,186
MJ36 × 1,5 — 4g6g	35,968	35,732	0,236	34,994	34,899	0,095	34,236	34,05	0,186
MJ39 × 1,5 — 4g6g	38,968	38,732	0,236	37,994	37,899	0,095	37,236	37,05	0,186
MJ42 × 2 — 4g6g	41,962	41,682	0,28	40,663	40,557	0,106	39,653	39,425	0,228
MJ48 × 2 — 4g6g	47,962	47,682	0,28	46,663	46,551	0,112	45,653	45,419	0,234
MJ50 × 2 — 4g6g	49,962	49,682	0,28	48,663	48,551	0,112	47,653	47,419	0,234

1) In accordance with ISO 965-1.