International Standard 5855/1

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Aerospace construction — MJ threads — Part 1 : Basic profile

Constructions aérospatiales — Filetage MJ — Partie 1 : Profil de base

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Foreword

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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.

International Standard ISO 5855/1 was developed by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, and was circulated to the member bodies in July 1980.

It has been approved by the member bodies of the following countries :

Austria	Egypt, Arab Rep. of	Pakistan
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The member body of the following country expressed disapproval of the document on technical grounds :

USSR

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0 Introduction

The basic profile of the MJ threads specified in this International Standard differs from that of the general purpose screw threads (M threads) specified in ISO 68 only in an increase in truncation on the minor diameter of internal thread D_1 (0,312 5 H instead of 0,250 0 H). This difference is due to the adoption of a maximum radius of 0,180 42 P on the root diameter of external thread d_3 (see ISO 5855/2).

1 Scope and field of application

This part of ISO 5855 specifies the basic profile for MJ threads.

This basic profile is applicable to all threaded parts of nominal diameters 1,6 mm and larger for use in aerospace construction. Threaded parts of nominal diameters 1 mm and 1,2 mm shall comply with ISO/R 1501.

2 References

ISO 68, *ISO general purpose screw threads — Basic profile.*

ISO/R 1501, *ISO miniature screw threads.*

ISO 5855/2, *Aerospace construction — MJ threads — Part 2 : Dimensions for bolts and nuts.*

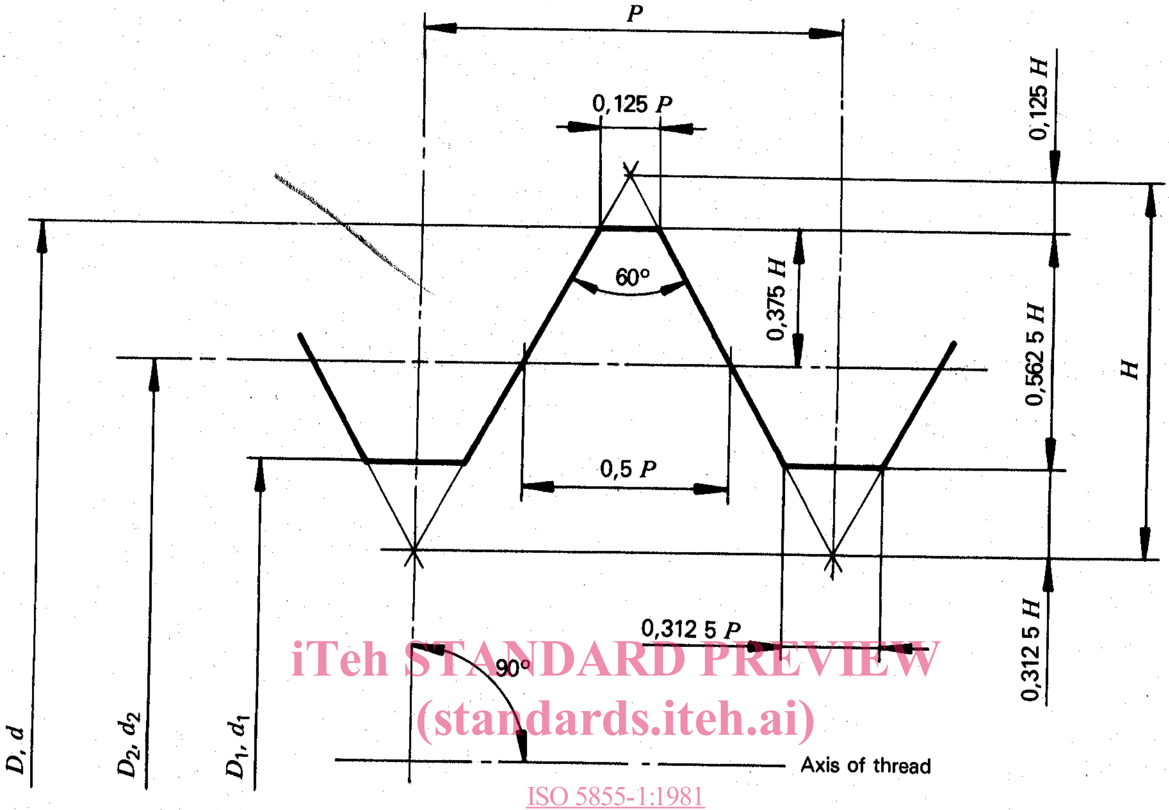
3 Definition

basic profile : The theoretical profile corresponding to the basic dimensions (without tolerances) of the major diameter, pitch diameter and minor diameter of the threads. (See the figure.)

Tolerance deviations shall be applied to these basic dimensions.

4 Dimensions of basic profile

See the table.



D = basic major diameter of internal thread

D_2 = basic pitch diameter of internal thread

D_1 = basic minor diameter of internal thread

d = basic major diameter of external thread

d_2 = basic pitch diameter of external thread

d_1 = basic minor diameter of external thread

H = height of fundamental triangle

P = pitch

Figure — Basic profile

Table

Dimensions in millimetres

P	0,125 P	0,312 5 P	H = 0,866 025 403 8 P	0,125 H = 0,108 25 P	0,312 5 H = 0,270 63 P	0,375 H = 0,324 76 P	0,562 5 H = 0,487 14 P
0,35	0,043 75	0,109 38	0,303 11	0,037 89	0,094 72	0,113 67	0,170 50
0,4	0,050 00	0,125 00	0,346 41	0,043 30	0,108 25	0,129 90	0,194 86
0,45	0,056 25	0,140 62	0,389 71	0,048 71	0,121 78	0,146 14	0,219 21
0,5	0,062 50	0,156 25	0,433 01	0,054 12	0,135 32	0,162 38	0,243 57
0,6	0,075 00	0,187 50	0,519 62	0,064 95	0,162 38	0,194 86	0,292 28
0,7	0,087 50	0,218 75	0,606 22	0,075 78	0,189 44	0,227 33	0,341 00
0,8	0,100 00	0,250 00	0,692 82	0,086 60	0,216 50	0,259 81	0,389 71
1	0,125 00	0,312 50	0,866 03	0,108 25	0,270 63	0,324 76	0,487 14
1,25	0,156 25	0,390 62	1,082 53	0,135 31	0,338 29	0,405 95	0,608 92
1,5	0,187 50	0,468 75	1,299 04	0,162 38	0,405 94	0,487 14	0,730 71
2	0,250 00	0,625 00	1,732 05	0,216 50	0,541 26	0,649 52	0,974 28
2,5	0,312 50	0,781 25	2,165 06	0,270 62	0,676 58	0,811 90	1,217 85
3	0,375 00	0,937 50	2,598 08	0,324 75	0,811 89	0,974 28	1,461 42