

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 775

CYLINDRICAL AND 1/10 CONICAL SHAFT ENDS

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 775, *Cylindrical and 1/10 conical shaft ends*, was drawn up by Technical Committee ISO/TC 14, *Shaft ends*, the Secretariat of which is held by the Institut Belge de Normalisation (IBN).

Work on this question led to the adoption of a Draft ISO Recommendation.

In May 1966, this Draft ISO Recommendation (No. 1015) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	Germany	Norway
Belgium	Greece	Sweden
Brazil	India	Switzerland
Bulgaria	Israel	Turkey
Chile	Japan	U.A.R.
Czechoslovakia	Korea, Rep. of	United Kingdom
Denmark	Netherlands	U.S.S.R.
France	New Zealand	

No Member Body opposed the approval of the Draft.

The Technical Committee decided to make certain modifications, of relatively minor importance, in Draft ISO Recommendation No. 1015; these were incorporated in a new Draft ISO Recommendation (No. 1702).

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in March 1969, to accept it as an ISO RECOMMENDATION.

CYLINDRICAL AND 1/10 CONICAL SHAFT ENDS

1. SCOPE

This ISO Recommendation determines the dimensional characteristics of

- cylindrical shaft ends (long series and short series);
- 1/10 conical shaft ends (long series and short series), without keys and keyways or with keyways for parallel keys.

For cylindrical shaft ends, the transmissible torques for various applications (pure torque, torque and bending moment) are also given.

This ISO Recommendation will be completed later by details of

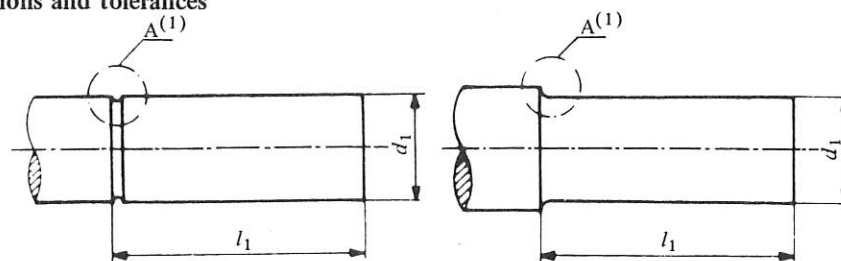
- the joining fillets for cylindrical shaft ends,
- the external and internal threads for conical shaft ends,
- the tolerances on form and position,

and by the addition of

- cylindrical shaft ends with internal thread,
- 1/10 conical shaft ends with Woodruff keys,
- conical shaft ends without keyways.

2. CYLINDRICAL SHAFT ENDS

2.1 Dimensions and tolerances



Dimensions in millimetres

Diameter d_1		Length l_1	
nominal	tolerance ⁽²⁾	long series	short series
6 7	j6	16	—
8 9	j6	20	—
10 11	j6	23	20 ⁽³⁾
12 14	j6	30	25 ⁽³⁾
16 18 19	j6	40	28
20 22 24	j6	50	36
25 28	j6	60	42
30 32 35 38	j6 k6	80	58
40 42 45 48 50 55 56	k6 m6	110	82
60 63 65 70 71 75	m6	140	105
80 85 90 95	m6	170	130

Diameter d_1		Length l_1	
nominal	tolerance ⁽²⁾	long series	short series
100 110 120 125	m6	210	165
130 140 150		250	200
160 170 180		300	240
190 200 220		350	280
240 250 260		410	330
280 300 320		470	380
340 360 380		550	450
400 420 440 450 460 480 500		650	540
530 560 600 630		800	680

Keys and keyways. The order relating to the keys and keyways, if required, should specify keys and keyways in conformity with one of the following ISO Recommendations :

ISO Recommendation R 773, *Rectangular or square parallel keys and their corresponding keyways (Dimensions in millimetres);*

ISO Recommendation R 774, *Taper keys and their corresponding keyways with or without gib head (Dimensions in millimetres);*

ISO Recommendation R . . . ,⁽⁴⁾ *Woodruff keys and their corresponding keyways.*

NOTE. — Tolerances on form and position will be specified later.

(1) Detail A will be specified later.

(2) See ISO Recommendation R 286, *ISO System of limits and fits — Part 1 : General, tolerances and deviations.*

(3) The dimensions thus indicated are not in agreement with the related dimensions of the long series conical shaft ends of the table in clause 3.1.1, and attention is drawn to this deviation from the relationship stated in the Annex.

(4) At present at the stage of draft proposal.