

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ADDENDUM 2
TO
ISO
RECOMMENDATION
R 297

7/24 TAPERS FOR TOOL SHANKS

TAPERS Nos. 65 TO 80 (METRIC DIMENSIONS)

1st EDITION

May 1974

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BRIEF HISTORY

Addendum 2 to ISO Recommendation ISO/R 297-1963 was drawn up by Technical Committee ISO/TC 39, *Machine tools*, and circulated to the Member Bodies in November 1972.

It has been approved by the Member Bodies of the following countries :

Australia	Hungary	Sweden
Belgium	India	Thailand
Czechoslovakia	Italy	Turkey
Egypt, Arab Rep. of	Japan	United Kingdom
France	Romania	
Germany	South Africa, Rep. of	

The Member Body of the following country expressed disapproval of the document on technical grounds :

Switzerland

Addendum 2 to ISO Recommendation ISO/R 297-1963

7/24 TAPERS FOR TOOL SHANKS

TAPERS Nos. 65 to 80 (METRIC DIMENSIONS)

SCOPE

ISO Recommendation R 297-1963 specifies the characteristics of 7/24 tapers Nos. 30, 40, 50 and 60. It has been supplemented by addendum 1 in March, 1971, for the insertion of tapers Nos. 45 and 55.

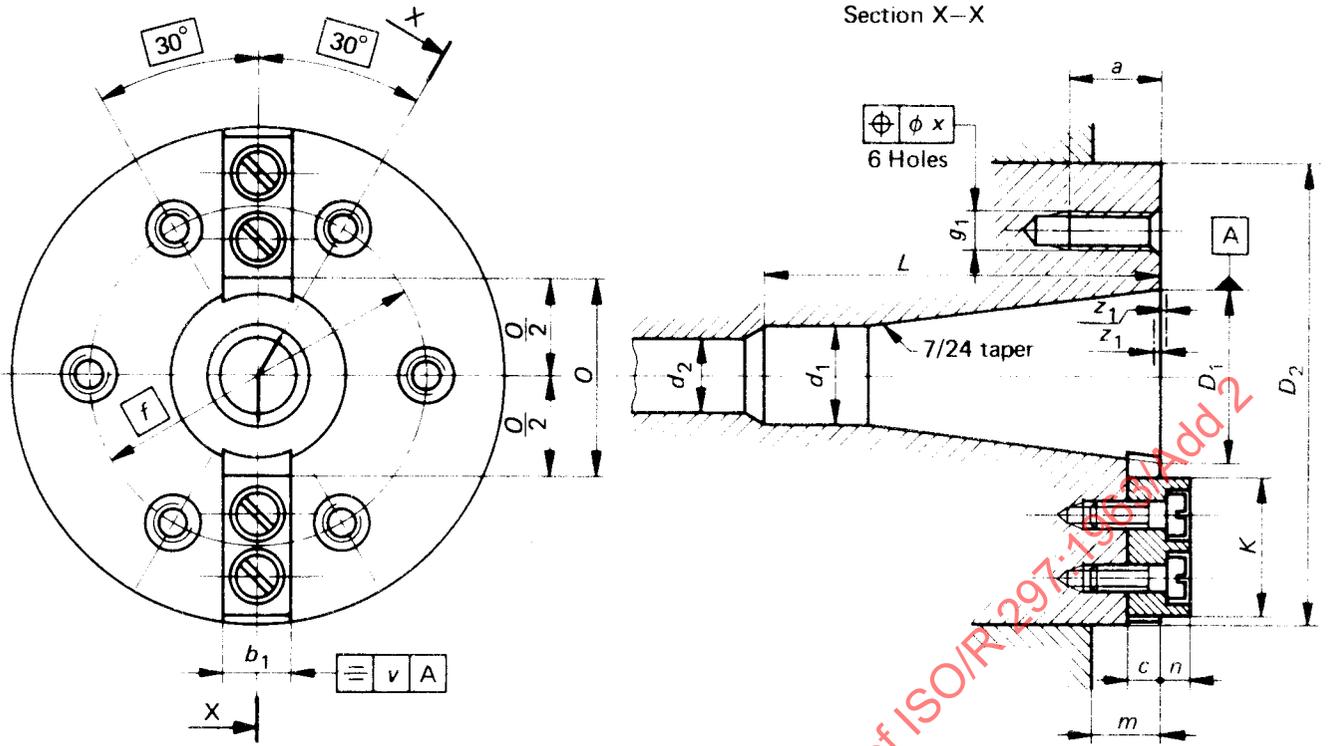
This second addendum specifies the characteristics of tapers Nos. 65, 70, 75 and 80 (metric dimensions).

Tapers Nos. 65, 70, 75 and 80 (dimensions in inches) will be the subject of addendum 3.

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7/24 TAPERS FOR SPINDLE NOSES

Section X-X



Dimensions in millimetres

Designation	No. 65	No. 70	No. 75	No. 80
D_1 1)	133,350	165,100	203,200	254,000
D_2 h5	280	335	400	500
d_1 H12	75	92	114	140
d_2 min.	42	42	56	56
L min.	265	315	400	500
g_1 2)	M 24	M 24	M 30	M 30
a min.	36	45	56	63
f	220	265	315	400
m min.	38	50	50	50
n max.	16	20	25	31,5
Q min.	75	90	108	136
b_1 3)	32	32	40	40
c min.	16	20	25	31,5
K max.	58	68	86	106
z_1 4)	0,4	0,4	0,4	0,4
v	0,1	0,1	0,1	0,1
x	0,250	0,250	0,320	0,320

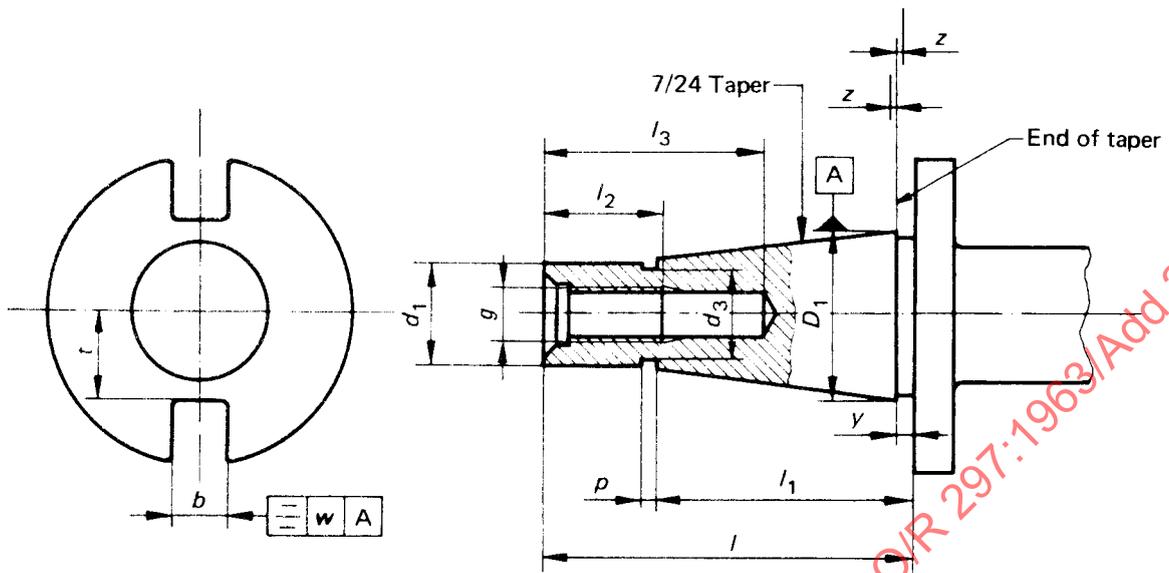
1) D_1 = basic size.

2) g_1 = thread diameter : metric thread M with standard pitch. (The symbol M should be marked on the component.)

3) For the assembly of the tenon in its slot = M6/h5 fit.

4) z_1 = maximum permissible deviation, on either side of the leading face, of the position of the gauge plane D_1 from the nominal position of coincidence with the leading face.

7/24 TAPERS FOR TOOL SHANKS



Dimensions in millimetres

Designation	No. 65	No. 70	No. 75	No. 80
D_1 ¹⁾	133,350	165,100	203,200	254,000
d_1 ^{a)10⁴}	75	92	114	140
l max.	250	300	375	475
l_1	206	256	312	400
g ²⁾	M 36	M 36	M 48	M 48
l_2	70	70	90	90
l_3 min.	160	160	180	180
d_3	72	90	110	136
b H12	32,4	32,4	40,5	40,5
t max.	72	86	104	132
p	12	14	16	18
y	4	4	5	6
z ³⁾	0,4	0,4	0,4	0,4
w	0,3	0,3	0,3	0,3

1) D_1 = basic size.

2) g = thread diameter : metric thread M with standard pitch. (The symbol M should be marked on the component.)

3) z = maximum permissible deviation, on either side of the end of the taper, of the position of the gauge plane D_1 from the nominal position of coincidence with the end of the taper.

4) It is also permitted to retain the following nominal values of d_1 , with tolerance h10: 74,5 - 91,5 - 113,5 - 139,5.