

INTERNATIONAL STANDARD



3291

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Extra long Morse taper shank twist drills

Forets extra-longes à queue cône Morse

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

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 3291 was drawn up by Technical Committee ISO/TC 29, *Small tools*, and circulated to the Member Bodies in December 1973.

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

Australia	India	Sweden
Austria	Israel	Switzerland
Belgium	Italy	Thailand
Canada	Japan	Turkey
Chile	Netherlands	United Kingdom
Czechoslovakia	New Zealand	U.S.S.R.
Egypt, Arab Rep. of	Poland	Yugoslavia
France	Romania	
Hungary	South Africa, Rep. of	

The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Germany
Ireland
U.S.A.

Extra long Morse taper shank twist drills

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the dimensions of extra long Morse taper shank twist drills, and supplements ISO 235/1, ISO 494 and ISO 3292.

It specifies dimensions in metric units only, these being regarded as the only recommended dimensions in the future, for this type of drill in the diameter range 6 to 50 mm and with overall lengths in the range 200 to 710 mm.

It gives a list of preferred diameters for these drills.

Unless otherwise stated, these drills will be right-hand cutting.

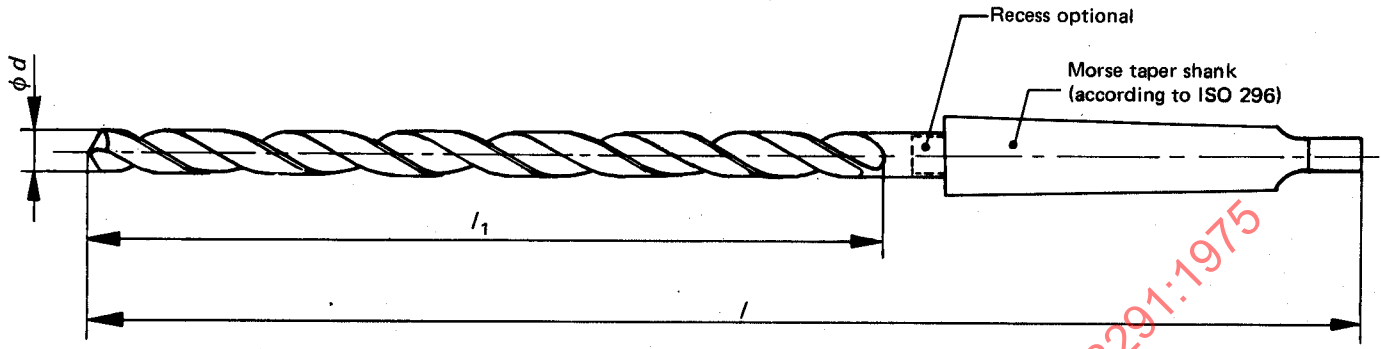
2 REFERENCES

ISO 235/1, *Parallel shank twist drills, jobber and stub series, Morse taper shank twist drills and core drills.*

ISO 494, *Parallel shank twist drills — Long series.*

ISO 3292, *Extra long parallel shank twist drills.*

3 DIMENSIONS



TABLE

Dimensions in millimetres

Preferred diameters <i>d</i> h8	<i>l</i> = 200 <i>l</i> ₁ = 125	<i>l</i> = 250 <i>l</i> ₁ = 160	<i>l</i> = 315 <i>l</i> ₁ = 200	<i>l</i> = 400 <i>l</i> ₁ = 250	<i>l</i> = 500 <i>l</i> ₁ = 315	<i>l</i> = 630 <i>l</i> ₁ = 400	<i>l</i> = 710 <i>l</i> ₁ = 450	Morse taper shank No.
6,0	X	X	X					1
6,5	X	X	X					
7,0	X	X	X					
7,5	X	X	X					
8,0	X	X	X					
8,5	X	X	X					
9,0	X	X	X					
9,5	X	X	X	X				1 or 2*
10,0	X	X	X					
10,5	X	X	X					
11,0	X	X	X					
11,5	X	X	X					
12,0		X	X	X				
12,5		X	X	X				
13,0		X	X	X				
13,5		X	X	X				
14,0		X	X	X				
14,5		X	X	X	X			2
15,0		X	X	X	X			
15,5		X	X	X	X			
16,0		X	X	X	X			
16,5		X	X	X	X			
17,0		X	X	X	X			
17,5			X	X	X			
Ranges of diameters	6,0 to 11,8	6,0 to 17,0	6,0 to 23,02	Over 9,5 to 40,0	Over 14,0 to 50,0	Over 23,02 to 50,0	Over 40,0 to 50,0	

* Drills in the diameter range 12 to 14 mm may have either Morse taper shank size No. 1 or 2.

TABLE (concluded)

Dimensions in millimetres

Preferred diameters d_{h8}	$l = 200$ $l_1 = 125$	$l = 250$ $l_1 = 160$	$l = 315$ $l_1 = 200$	$l = 400$ $l_1 = 250$	$l = 500$ $l_1 = 315$	$l = 630$ $l_1 = 400$	$l = 710$ $l_1 = 450$	Morse taper shank No.
18,0			X	X	X			2
18,5			X	X	X			
19,0			X	X	X			
19,5			X	X	X			
20,0			X	X	X			
20,5			X	X	X			
21,0			X	X	X			
21,5			X	X	X			
22,0			X	X	X			
22,5			X	X	X			
23,0			X	X	X			
23,5				X	X	X		3
24,0				X	X	X		
24,5				X	X	X		
25,0				X	X	X		
25,5				X	X	X		
26,0				X	X	X		
26,5				X	X	X		
27,0				X	X	X		
27,5				X	X	X		
28,0				X	X	X		
28,5				X	X	X		
29,0				X	X	X		
29,5				X	X	X		
30				X	X	X		
31				X	X	X		
32				X	X	X		4
33				X	X	X		
34				X	X	X		
35				X	X	X		
36				X	X	X		
37				X	X	X		
38				X	X	X		
39				X	X	X		
40				X	X	X		
41					X	X	X	
42					X	X	X	
43					X	X	X	
44					X	X	X	
45					X	X	X	
46					X	X	X	
47					X	X	X	
48					X	X	X	
49					X	X	X	
50					X	X	X	
Ranges of diameters	6,0 to 11,8	6,0 to 17,0	6,0 to 23,02	Over 9,5 to 40,0	Over 14,0 to 50,0	Over 23,02 to 50,0	Over 40,0 to 50,0	

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