UDC 621.886.112 October 1992

Hardened parallel pins
(ISO 8734 : 1987)
English version of DIN EN 28 734

DIN
EN 28 734

This standard incorporates the English version of ISO 8734.

Zylinderstifte, gehärtet (ISO 8734 : 1987)

Supersedes DIN 6325, October 1971 edition.

European Standard EN 28 734 : 1992 has the status of a DIN Standard.

A comma is used as the decimal marker.

National foreword

The publication of this standard is in keeping with a decision made by CEN/TC 185 to adopt, without alteration, a series of ISO Standards covering parallel and taper pins as European Standards. The responsible German body involved in their publication is the *Normenausschuß Mechanische Verbindungselemente* (Fasteners Standards Committee).

As a consequence, all DIN Standards covering such pins have been superseded by the corresponding DIN EN Standards (see table below).

EN Standard	DIN EN Standard	Title	Previous DIN Standard
22 338	22 338	Unhardened parallel pins	7
22 339	22 339	Unhardened taper pins	1
28 733	28 733	Unhardened parallel pins with internal thread	7979
28 734	28 734	Hardened parallel pins	6325
28 735	28 735	Hardened parallel pins with internal thread	7979
28 736	28 736	Unhardened taper pins with internal thread	7978
28 737	28 737	Unhardened taper pins with external thread	7977

The DIN Standard corresponding to the ISO Standard referred to in clause 2 of the EN is DIN ISO 3269 (at present at the stage of draft).

The DIN 4000-9-1 tabular layout of article characteristics applies for parallel pins as covered here.

Continued overleaf.
EN comprises 5 pages.

Standard referred to

(and not included in **References**)

DIN 4000 Part 9 Tabular layout of article characteristics for bolts, screws, pins, rivets, keys, and lock washers

Previous editions

DIN 6325: 03.51, 10.58, 10.71.

Amendments

In comparison with DIN 6325, October 1971 edition, the following amendments have been made.

a) A new type of pin, case hardened (type B), and a new end shape (rounded) have been introduced.
b) The nominal diameters of 0,8 mm and 14 mm have been dropped.
c) The specifications for the nominal lengths and their tolerances have been amended.
d) The hardness is now specified as Vickers hardness.
e) The standard designation has been changed.

International Patent Classification

F 16 B 19/02
C 22 C 38/04
C 22 C 38/18

1 Scope and field of application

This International Standard specifies the characteristics of through hardened and case hardened parallel pins (dowel pins) with metric dimensions and nominal diameters, *d*, from 1 to 20 mm inclusive.

2 References

ISO 3269, *Fasteners -- Acceptance inspection.*

ISO 4520, *Chromate conversion coatings on electroplated zinc and cadmium coatings.*

4 Specifications and reference International Standards

<table>
<tr><td>Material [1]</td><td>St = steel meeting the following analyses [% (m/m)] :
Type A
C 0,95 to 1,1
Si 0,15 to 0,35
Mn 0,25 to 0,4
P 0,03 max.
S 0,025 max.
Cr 1,35 to 1,65

Hardness :
550 to 650 HV30

Type B
or
C 0,06 to 0,13 | C 0,15 max.
Si 0,1 to 0,4 | Si 0,10 max.
Mn 0,25 to 0,6 | Mn 0,9 to 1,3
P 0,025 max. | P 0,07 max.
S 0,05 max. | S 0,15 to 0,35
Pb 0,15 to 0,35
at the supplier's option

Surface hardness :
600 to 700 HV1
Hardness at case depth 0,25 to 0,4 mm :
550 HV1 min.</td></tr>
<tr><td rowspan="2">Surface finish</td><td>Plain, i.e. pins to be supplied in natural finish, treated with a protective lubricant, unless otherwise specified by agreement between customer and supplier.</td></tr>
<tr><td>Appropriate plating or coating processes should be employed to avoid hydrogen embrittlement. When pins are electroplated or phosphate-coated, they shall be suitably treated immediately after plating or coating to obviate detrimental hydrogen embrittlement, although freedom from hydrogen embrittlement is not guaranteed.
Preferred coatings are chemical black oxide or non-electrolytic zinc plating.
Other coatings as agreed between customer and supplier.
All tolerances shall apply prior to the application of a plating or coating.</td></tr>
<tr><td>Workmanship</td><td>Parts shall be uniform in quality and free of irregularities or detrimental defects.
No burrs shall appear on any part of the pin.</td></tr>
<tr><td>Acceptability</td><td>The acceptance procedure is covered in ISO 3269.</td></tr>
</table>

1) Other materials as agreed between customer and supplier.

5 Designation

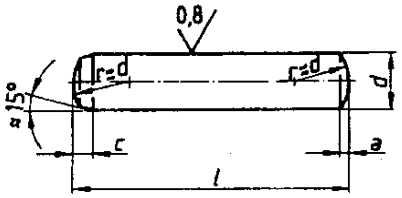
Example for the designation of a through hardened steel parallel pin type A, with nominal diameter d = 6 mm and nominal length l = 30 mm :

Parallel pin ISO 8734 - 6 × 30 - A - St

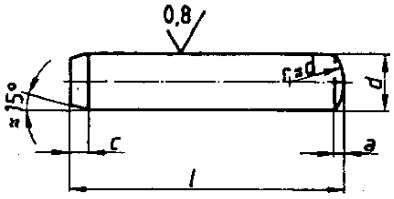
3 Dimensions

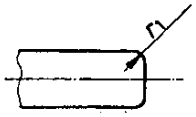
Surface roughness values in micrometres

Type A
Pin with crown, through hardened



Type B
Flat pin, case hardened





Optional end shape for both pin types at the manufacturer's discretion, dimension r_1 replacing a.

Dimensions in millimetres

d		m6[1]	1	1,5	2	2,5	3	4	5	6	8	10	12	16	20
a		≈	0,12	0,2	0,25	0,3	0,4	0,5	0,63	0,8	1	1,2	1,6	2	2,5
c			0,5	0,6	0,8	1	1,2	1,4	1,7	2,1	2,6	3	3,8	4,6	6
r_1		min.	–	0,2	0,2	0,3	0,3	0,4	0,4	0,4	0,5	0,6	0,6	0,8	0,8
		max.	–	0,6	0,6	0,7	0,8	0,9	1	1,1	1,3	1,4	1,6	1,8	2
l[2] nom.	l[2] min.	l[2] max.													
3	2,75	3,25													
4	3,75	4,25													
5	4,75	5,25													
6	5,75	6,25													
8	7,75	8,25													
10	9,75	10,25													
12	11,5	12,5													
14	13,5	14,5													
16	15,5	16,5													
18	17,5	18,5													
20	19,5	20,5													
22	21,5	22,5													
24	23,5	24,5													
26	25,5	26,5													
28	27,5	28,5													
30	29,5	30,5													
32	31,5	32,5													
35	34,5	35,5													
40	39,5	40,5													
45	44,5	45,5													
50	49,5	50,5													
55	54,25	55,75													
60	59,25	60,75													
65	64,25	65,75													
70	69,25	70,75													
75	74,25	75,75													
80	79,25	80,75													
85	84,25	85,75													
90	89,25	90,75													
95	94,25	95,75													
100	99,25	100,75													

Range of commercial lengths

1) Other tolerances as agreed between customer and supplier.

2) For nominal lengths above 100 mm, steps of 20 mm.