

Westfield Fasteners Product Specification:

ISO 8733 - Extractable Dowel Pin / Parallel Pin, Unhardened

This product guide contains the specification for metric sized parallel pins with an internal thread, or extractable dowel pins. These items are series of standard parts available from Westfield Fasteners. The basis of this specification is the ISO standard ISO 8733.

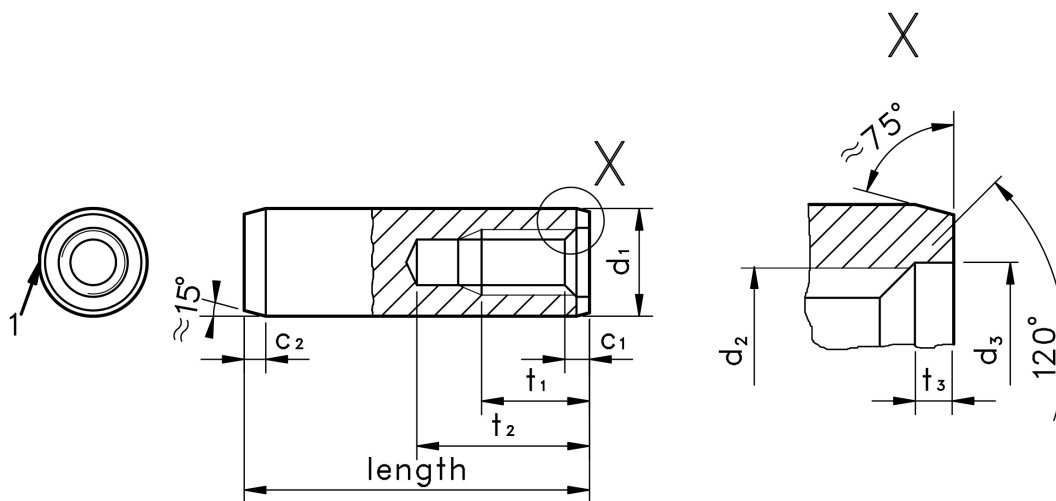
Product Description

Extractable dowel pins with an internal metric thread. These pins are typically used for locating and aligning components in tools, moulds and jigs, and feature an internal thread to help with their removal again when required. These extractable dowel pins are produced in unhardened steel, and are toleranced to an m6 fit. They may include a slight flat along their length for air release.

Extractable dowel pins are a type of parallel pin and are also known as pull dowel pins. Hardened equivalents of extractable dowel pins are specified in other DIN and ISO standards.

Scope of the ISO Standard.

ISO 8733 defines the characteristics and dimensions of these unhardened extractable dowel pins for diameters from 6mm to 24mm inclusively. Whilst these items are an unhardened type, the standard offers a hardness rating of 125-245 HV30 for plain steel, and 210-280 HV30 for A1 stainless steel. Please note that diameters of 4mm and 5mm do not form part of the ISO standard, but are available off the shelf. Figure 1 below illustrates the basic design, and should be used with table 1 for tolerance information on the end treatment, and table 2 for tolerances on the length as illustrated.



1. Slight flat or small groove at the manufacturer's discretion

Figure 1: ISO 8733 Extractable Dowel Pin, Unhardened

Table 1: Dimensions and tolerances according to ISO 8733 (mm)

d₁ (m6 fit)	6	8	10	12	16	20	25	30	40	50
c ₁ ≈	0.8	1	1.2	1.6	2	2.5	3	4	5	6.3
c ₂ ≈	1.2	1.6	2	2.5	3	3.5	4	5	6.3	8
d ₂ (Thread)	M4	M5	M6	M6	M8	M10	M16	M20	M20	M24
Thread Pitch	0.7	0.8	1	1	1.25	1.5	2	2.5	2.5	3
d ₃	4.3	5.3	6.4	6.4	8.4	10.5	17	21	21	25
t ₁	6	8	10	12	16	18	24	30	30	36
t ₂ min.	10	12	16	20	25	28	35	40	40	50
t ₃	1	1.2	1.2	1.2	1.5	1.5	2	2	2.5	2.5

Table 2: Tolerance on pin length according to ISO 8733 (mm)

Length	Tolerance
16-50	+/- 0.5
55-200	+/- 0.75

For verification of details and for further information please refer to the ISO standard document for this item.
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