Precision Tool Steel Plate Specification

Manufacturing specifications supplied by Lichengda · Confirm final order requirements

1. Plate finishing options

Finish	Length	Width	Thickness	Parallelism
Six-side precision milling	±0.10 mm	±0.10 mm	±0.10 mm	0.08 mm / 100 mm
Two-side grinding + four-side milling	±0.10 mm	±0.10 mm	±0.05 mm	0.04 mm / 100 mm
Six-side precision grinding (E1)	±0.02 mm	±0.02 mm	±0.02 mm	0.02 mm / 100 mm

The two-side-ground parallelism applies between the two ground reference faces. Parallelism per 100 mm is not a whole-plate absolute tolerance and is not interchangeable with flatness or roughness.

2. E1 eligibility

> Six-side precision grinding (E1): length, width and thickness tolerances of ±0.02 mm, with parallelism of 0.02 mm per 100 mm. This specification applies only to blocks with length and width each up to 600 mm and thickness from 10 to 200 mm, in the following grades and conditions: pre-hardened 718H, 1.2738, NAK80 and 1.2316; or hardened and tempered S136, D2, SKD11 and DC53. Larger sizes, annealed material and other grades are subject to separately confirmed tolerances.

E1 is Lichengda’s designation for this six-side grinding specification. Annealed stock, larger plates and large H13 hot-work forgings are not automatically eligible. Separate machining and acceptance requirements must be agreed.

3. Sizes, grades and material condition

Regular sizes: 100 × 100 × 20 mm to 800 × 600 × 300 mm. Maximum processing size: 1200 × 800 × 400 mm, subject to project review. Maximum size does not carry the E1 specification.

Grades: P20, 718H, 1.2738, NAK80, S136, 1.2316, H13, 1.2344, D2, SKD11 and DC53. These are separately listed grade designations, not an automatic equivalence statement. Annealed, pre-hardened, or hardened-and-tempered delivery depends on the actual grade and order.

4. Reports and quotation requirements

MTC documentation, hardness and dimensional inspection reports can be provided. UT reports are available on request. Specify the document type, test standard, acceptance level and inspection scope required for the order.

Include grade, condition, finished dimensions, quantity, finishing scope, drawing revision, additional geometric or surface requirements, documents and destination.

5. Production lead time

Typical precision plate production: 3–7 working days.

Production lead times are quoted in working days, excluding weekends and statutory public holidays in China. Lead time starts on the next working day after all applicable conditions have been fulfilled: receipt of the formal purchase order, final drawing/specification approval, and receipt of the deposit where required.

Transportation time is separate.