

**HARDENED STEEL CUTTING DIE**

# Hardened Steel Cutting Die for ASTM E8 Type 2

Sheet-Type Tensile Specimen · Tensile specimen — built to ASTM E8/E8M: Standard Test Methods for Tension Testing of Metallic Materials



## OVERVIEW

Solid cutting die for cutting Sheet-Type Tensile specimens to ASTM E8/E8M. The die is machined from a single piece of steel, hardened and finished with a sharp, precision cutting edge, so it holds its profile when cutting harder plastics from 0 to 5 mm thick.

## KEY FEATURES

- Machined from a single piece of steel — no joints or seams in the cutting edge
- Hardened, precision-finished edge for clean, square specimen sides
- Cuts harder plastics, filled compounds and sheet from 0–5 mm thick
- Integral ejector plate releases the specimen after cutting
- Long service life; cutting edge can be re-sharpened

## SPECIMEN PROFILE

|                                 |               |
|---------------------------------|---------------|
| Overall length (min)            | 200 mm        |
| Width of reduced section        | 12.5 ± 0.2 mm |
| Length of reduced section (min) | 57 mm         |
| Gauge length                    | 50.0 ± 0.1 mm |
| Width of grip section           | 20 mm         |
| Fillet radius (min)             | 12.5 mm       |
| Thickness                       | 0.13–19 mm    |

Nominal values per ASTM E8/E8M; die is cut to the standard's profile.

## DIE SPECIFICATIONS

|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Die construction      | One-piece machined steel body                                       |
| Cutting edge          | Hardened, precision-finished                                        |
| Material thickness    | 0 – 5 mm                                                            |
| Recommended materials | Rigid & semi-rigid plastics, filled compounds, rubber, sheet & film |
| Specimen ejection     | Integral ejector plate                                              |
| Press compatibility   | Manual, pneumatic & hydraulic sample-cutting presses                |
| Cut profile           | Sheet-Type Tensile Specimen per ASTM E8/E8M                         |

## APPLICATIONS

- Sheet metal & coil
- Automotive body steel
- Aluminum strip
- Stamped component QC

## ABOUT THE STANDARD

ASTM E8/E8M covers room-temperature tension testing of metals to determine yield strength, tensile strength, elongation and reduction of area. The sheet-type specimen with a 50 mm gauge is the standard flat geometry for sheet, strip and plate.

**Ordering & customization:** Specify the standard and specimen type, die style (ribbon steel or hardened steel), the material and thickness you cut, and your press make/model so we can match the mounting. Custom profiles, multi-cavity dies and nick/notch features are available on request.

### Also available: Ribbon Steel version

Economical steel-rule die for rubber, elastomers and soft plastics up to 3 mm thick — same ASTM E8 Type 2 profile.

Metallic-specimen geometry: confirm sheet material, hardness and thickness at quote. Specifications are typical and may vary by configuration; confirm at time of quote. Refer to the current edition of the standard for specimen tolerances and test procedures. Part ref. UGC-CDH-E8E8M-Sheettype