



Technical drawing of a mechanical part (Fig. 1) showing dimensions and tolerances. The part is symmetrical about a vertical dashed centerline. Key dimensions include: overall width 35, top flange width 10, top flange thickness 15 ± 0.02 , top flange height 17, top flange width 9.5, top flange thickness 3, top flange radius R2, top flange chamfer 3-1x45°, top flange height 25, top flange radius R16, top flange height 28, top flange radius R16, top flange height 15, top flange radius R1, top flange angle 85°, overall height 120 $\pm$ 0.02, and overall height 150.

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Digima die for AMADA press brake, TYPE 800x150x35, 4 segments, L=3200mm, pressure: up to 250T

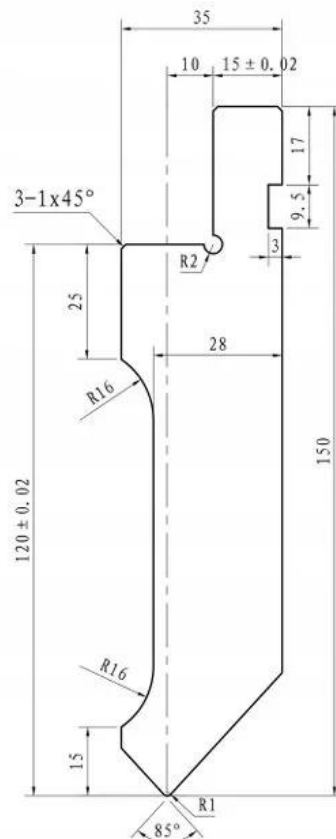
We are pleased to present a top-of-the-range Digima upper die, designed for the most demanding bending operations on press brakes using the Amada clamping system. This tool is designed for machines with high pressing forces of up to 250 tonnes, making it the ideal choice for production facilities prioritising maximum productivity and precision in the manufacture of thick-walled components. The punch is made from carefully selected T8A tool steel, which is characterised by excellent resistance to material fatigue and exceptional dimensional stability under heavy loads.

A key factor in extending the tool's service life is the high-frequency induction hardening process applied to the cutting edge. Thanks to this treatment, the punch tip achieves a hardness of $HRC\ 45 \pm 2$, which guarantees long-term maintenance of precise geometry and minimises the risk of cracks or the blade

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becoming blunt when working with hard sheet metal. The tool is supplied in a modular system, allowing for the creation of a 3,200-millimetre-long bending line (consisting of 4 sections, each 801 millimetres long). Each segment is precision-ground to ensure that the misalignment at the joints does not exceed 0.05 millimetres, guaranteeing a perfectly straight bend line along the entire length of the workpiece.

Compatible with the **PBH-250x3200 press and other models of similar dimensions**



Full technical specifications and design parameters

Below is a complete summary of the punch's technical data, taken directly from the design documentation:

Geometric and working dimensions:

- **Total height of the tool:** 150 millimetres.
- **Functional height (from the base plane to the bending axis):** 120 plus x minus 0.02 millimetres.
- **Width of the upper part of the punch (shoulders):** 35 millimetres.
- **Width of the tool body:** 28 millimetres.
- **Width at the profile constriction:** 25 millimetres.
- **Punch cutting edge angle:** 85 degrees.

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- **Radius of the working nose:** R 1 millimetre.

Mounting and profile parameters:

- **Dimension of standard Amada mounting:** 15 millimetres plus or minus 0.02 millimetres.
- **Width of the clamping tab:** 10 millimetres.
- **Dimensions of the retaining slot:** height 9.5 millimetres with a cut-in depth of 3 millimetres.
- **Socket positioning:** 17 millimetres from the upper edge of the punch.
- **Design radii of the profile:** main arcs with a radius of R 16 millimetres and auxiliary radii of R 2 millimetres.
- **Edge finish:** type 1 chamfer at 45 degrees, machined at three points on the tool profile.



Manufacturing standards and tolerances

- **Heat treatment:** high-frequency hardening of the cutting edge to a hardness of HRC 45 ± 2 degrees.
- **Fitting accuracy:** the error at segment joints when operating as a set (group interchangeability) is less than or equal to 0.05 millimetres.
- **Geometric tolerances:** the tool's parallelism and perpendicularity errors are maintained within limits of 0.05 millimetres or less.
- **End-face finish:** all edges at section joints, except for the cutting edge, are rounded to a radius of R 0.5 millimetres.
- **Set configuration:** total length 3200 mm, comprising 4 segments of 800 millimetres each.

*The photographs are for illustrative purposes only; the main image shows the cross-sectional shape of the tool as depicted in the technical drawing (without indicating the length), whilst the side view provides an example of what such a segment would look like in reality