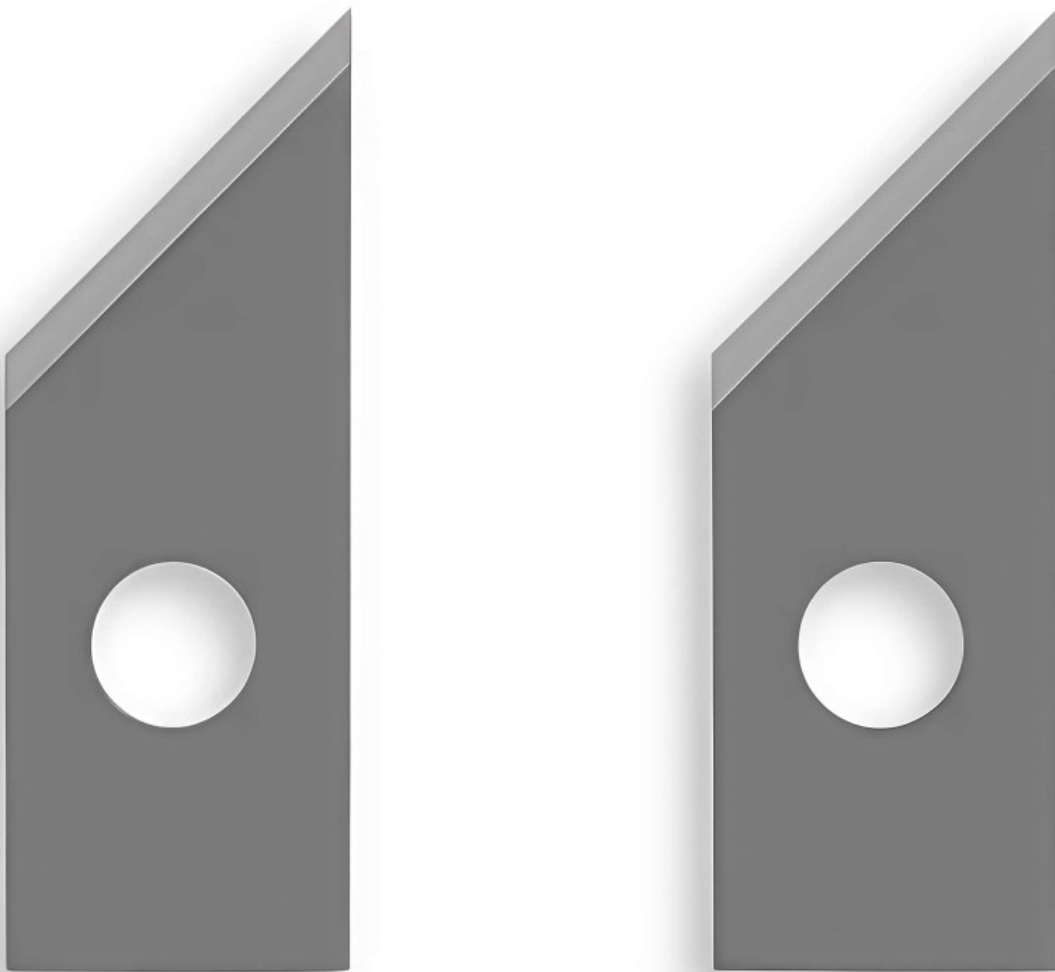


Gerber TI-051 TI-052 TI-055 TI-166 TI-353 Cutting Machines Replacement Tungsten Carbide Tangential Blades Parts Overview

Solid tungsten carbide replacement tangential blades for Gerber digital cutting systems (such as the Gerber Taurus, DCS series, GTxL, and Z1 models)



[Solid tungsten carbide tangential blades designed for Gerber digital cutting systems](#), including models like the Gerber Taurus, DCS series, GTxL, and Z1, offer exceptional wear resistance and precise cutting capabilities. These blades excel in cutting tasks across various materials, such as apparel, leather, technical textiles, and composites. The tangential blades are equipped with active motor-driven steering, requiring stringent dimensional standards to ensure accurate blade control and precision in depth regulation.

Technical Specifications Overview:

- Blade Model: [TL-051](#)
 - Cutting Angle: 30°
 - Thickness: 0.50 mm / 1.0 mm
 - Total Length: ~17.3 mm
 - Max Cutting Depth: 3.5 mm
 - Mounting Hole Ø: ~2.7 mm – 3.0 mm
 - Primary Target Materials: Thin paper, light textiles, film, fine detail cuts
-
- Blade Model: [TL-052](#)
 - Cutting Angle: 45°
 - Thickness: 0.50 mm / 1.0 mm
 - Total Length: ~17.3 mm
 - Max Cutting Depth: 6.0 mm
 - Mounting Hole Ø: ~2.7 mm – 3.0 mm
 - Primary Target Materials: General fabrics, leather, cardboard, vinyl
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- Blade Model: TL-055
 - Cutting Angle: 45°
 - Thickness: 0.50 mm
 - Total Length: ~17.7 – 18.0 mm
 - Max Cutting Depth: 6.0 mm
 - Mounting Hole Ø: ~2.7 mm
 - Primary Target Materials: Heavy leather, dense textiles, technical fabrics
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- Blade Model: [TL-166](#)
 - Cutting Angle: 55°
 - Thickness: 0.50 mm
 - Total Length: ~17.7 mm
 - Max Cutting Depth: 8.0 mm
 - Mounting Hole Ø: ~2.7 mm
 - Primary Target Materials: Thicker gasket materials, foam, heavy textiles
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- Blade Model: TL-353
 - Cutting Angle: 55°
 - Thickness: 1.00 mm
 - Total Length: ~17.7 mm
 - Max Cutting Depth: 8.0 mm
 - Mounting Hole Ø: ~2.7 mm
 - Primary Target Materials: Rigid/heavy materials requiring high deflection resistance

Key Features & Model Breakdown:

- TL-051 (30° Angle): Designed for intricate geometries and sharp curves, ideal for thin flexible

substrates where minimal cutting drag is necessary.

- TL-052 (45° Angle): The versatile choice for Gerber cutting systems, offering a balance of edge strength and speed.
- TL-055 (45° Angle, Fine Profile): Includes a precision double-bevel design at a consistent thickness of 0.50 mm; perfect for cutting through challenging leather and synthetic textiles smoothly.
- TL-166 (55° Steep Angle): Features a steeper angle for deeper cuts up to 8.0 mm while preserving strength under higher feed rates.
- TL-353 (55° Steep Angle, Heavy Duty): Built with a thicker carbide body of 1.00 mm for superior rigidity, preventing flex when dealing with high-density composites or multi-layer stacks.

Manufacturing & Material Quality Highlights:

- Material Composition: Constructed from fine-grained virgin tungsten carbide to ensure maximum wear resistance, sharpness, and heat resistance during high-speed production processes.
- Mounting Precision: Precision-ground locating holes (approximately Ø2.7 mm - 3.0 mm) offer consistent positioning within the tangential blade holder, eliminating play or axial drift.
- Finish: Precision mirror-lapped bevels decrease material drag and prevent fraying or tearing of delicate woven fabrics and technical leather.

Selection Parameters (How to Choose)

A. Material Thickness & Cutting Depth Under 3.5 mm: Choose a 30° blade (TL-051). The acute angle reduces drag and material displacement, ensuring tight corners and fine radii without snagging. 3.5 mm to 6.0 mm: Choose a 45° blade (TL-052 or TL-055). The larger cutting angle provides better structural stability at the tip to prevent deflection.

B. Substrate Toughness & Abrasion Soft / Standard Materials (Paper, soft textiles): TL-051 or TL-052. Abrasive / Hard Materials (Thick leather, dense synthetics, technical fabrics): Opt for TL-055 or TL-166. The double-bevel design and tip mass in models like the TL-055 resist chipping under heavy mechanical shear.

C. Edge Geometry: Single Bevel vs. Double Bevel. Single Bevel: Best when one side of the cut must be strictly straight/plumb (e.g., tight pattern alignment or tight edge offset). Double Bevel: Balances cutting forces on both sides of the blade, extending tool life and providing cleaner cuts on balanced fabrics and leather.

For more information about Shenzhen Oyea Machinery, please visit the company's official website ([link inserted here](#)).

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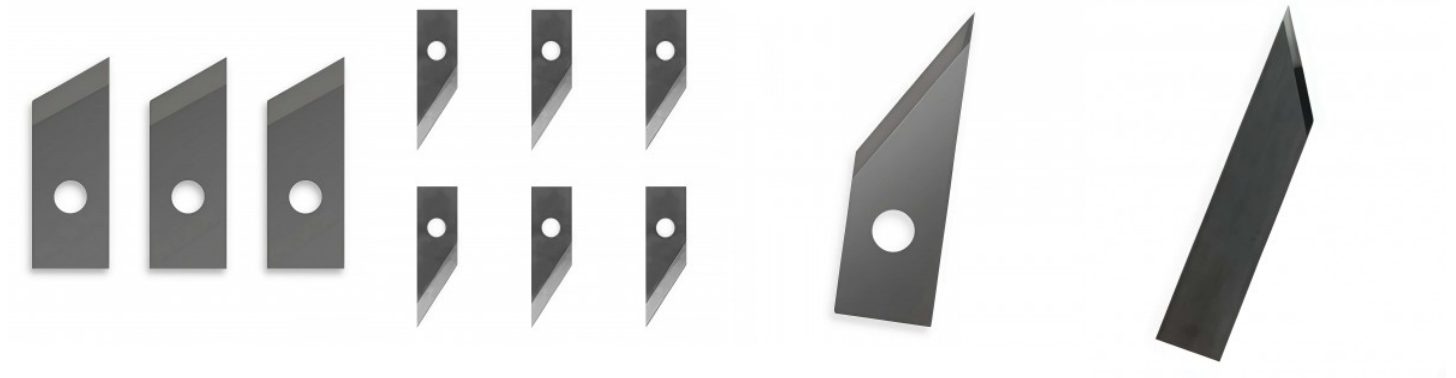
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