

GROXX ANNULAR CUTTER

GRXAC997

TECHNICAL SPECIFICATION

GROXX ANNULAR CUTTER | GRXAC977

HEAVY-DUTY INDUSTRIAL CORE DRILLING AND HOLE-MAKING COMPONENT

The **Groxx Annular Cutter (Model Number: GRXAC977)** is a premium, production-grade core drilling bit engineered for precision metal penetration, structural steel fabrication, and heavy-duty industrial machining tracks. Featuring an optimized hollow center geometry that cuts only the periphery of the hole, this component minimizes material resistance to maximize cutting efficiency, delivering clean, burr-free holes at a significantly faster rate than conventional twist drill bits.



ENGINEERING AND MATERIAL FEATURES

- Multi-Grade Metallurgical Construction:** Available in a diverse range of premium tool steel compositions to match specific workpiece hardness criteria, including M2 High-Speed Steel, M35 Cobalt High-Speed Steel, M42 Super Cobalt High-Speed Steel, and ultra-hard Carbide Tipped variations.
- Standardized Weldon Shank Interface:** Precision ground with a standardized three-quarter inch Weldon shank. This dual-flat driving system provides slip-free mechanical locking and absolute concentricity inside magnetic drills and stationary drilling presses.
- Variable Depth Capabilities:** Manufactured across a broad range of standard working lengths, supporting clean sheet and plate penetrations across cut depth ratings of 1 inch, 2 inches, 3 inches, and 4 inches.
- High-Efficiency Geometry:** Designed with an engineered multi-tooth cutting edge profile that balances structural load distribution during rotational shearing, reducing machine stress and extending tooling life.

TECHNICAL SPECIFICATIONS

FEATURE / CORE ENGINEERING ATTRIBUTE	SPECIFICATION / TECHNICAL TARGET
Model Number	GRXAC977
Product Classification	Industrial Core Drilling / Annular Cutting Bit
Shank Standard Type	Three-quarter inch Weldon Shank (3/4" Weldon)
Available Cut Depth Matrix	1 inch, 2 inches, 3 inches, or 4 inches (depth specified upon order placement)
Material Base Variations	M2 HSS, M35 Cobalt, M42 Super Cobalt, or Carbide Tipped
Target Workpiece Profiles	Structural Steel, Plate Metal, Alloys, and Non-Ferrous Metals

EXTENSIVE SIZING MATRIX

To accommodate global engineering formats, the cutter series is supplied in highly comprehensive metric and imperial sizing selections:

1. METRIC DIAMETER SIZES (MEASURED IN MILLIMETERS)

The metric sizing track spans from a baseline 12 millimeter profile up to a maximum 63 millimeter industrial diameter:

- 12 through 21 millimeters:** 12, 13, 14, 15, 16, 17, 18, 19, 20, 21
- 22 through 31 millimeters:** 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
- 32 through 41 millimeters:** 32, 33, 34, 35, 36, 37, 38, 39, 40, 41
- 42 through 51 millimeters:** 42, 43, 44, 45, 46, 47, 48, 49, 50, 51
- 52 through 63 millimeters:** 52, 53, 54, 55, 56, 57, 58, 60, 62, 63

2. INCH DIAMETER SIZES (MEASURED IN FRACTIONAL INCHES)

The fractional sizing track covers tight clearances starting at one-half inch up to a wide two and one-half inch profile:

- 1/2 inch through 1-1/16 inches:** 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1", 1-1/16"
- 1-1/8 inches through 1-11/16 inches:** 1-1/8", 1-3/16", 1-1/4", 1-5/16", 1-3/8", 1-7/16", 1-1/2", 1-9/16", 1-5/8", 1-11/16"
- 1-3/4 inches through 2-5/16 inches:** 1-3/4", 1-13/16", 1-7/8", 1-15/16", 2", 2-1/16", 2-1/8", 2-3/16", 2-1/4", 2-5/16"
- Large Diameter Track:** 2-3/8", 2-7/16", 2-1/2"

THE GROXX ADVANTAGE

- **Vastly Accelerated Hole Making:** By shifting from a solid twist drill bit to the hollow **GRXAC977 core geometry**, the cutting face shears away only an outer ring of steel, converting the center into a solid metal plug. This drastically lowers motor horse-power requirements and accelerates cycle times by up to three times compared to traditional boring methods.
- **Premium Heavy-Substrate Choices:** Offering cobalt-enriched M35 and M42 tool steel alongside high-end Carbide Tipped configurations allows structural teams to flawlessly slice through difficult, high-tensile structural alloys, structural beams, and hardened stainless plates without rounding the outer tooth corners.
- **Rigid Weldon Alignment:** The classic **three-quarter inch Weldon shank** utilizes precise flat backing planes that anchor securely into the arbor chuck set screws. This structural arrangement entirely eliminates bits slipping under high torsional loads, minimizing tool shatter risks while maintaining perfectly round entry and exit margins.