

KYOCERA DA2090MGMPR1535

KYOCERA DA2090MGMPR1535 Replaceable Tip Drill Insert User Manual

INTRODUCTION

This manual provides essential information and instructions for the safe and effective use of the KYOCERA DA2090MGMPR1535 Replaceable Tip Drill Insert. Designed for high-performance drilling, this carbide insert features a Megacoat finish and is optimized for steel applications, offering long tool life and stable machining. Adherence to these guidelines will ensure optimal performance and longevity of the product.



A close-up view of the KYOCERA DA2090MGMPR1535 replaceable tip drill insert, showcasing its carbide construction and Megacoat finish. The image highlights the cutting edges and the overall design of the insert.

PRODUCT FEATURES

- Replaceable tip insert compatible with the Kyocera DRA Magic Drill system.
- Engineered for high-performance drilling specifically in steel applications.
- Facilitates easy and efficient insert replacement, minimizing downtime.
- Designed for fine chip breaking, even during deep hole drilling operations.
- Features MEGACOAT NANO PVD Grades for extended tool life and stable machining performance.

SETUP AND INSTALLATION

Proper installation of the drill insert is crucial for safety and optimal performance. Always wear appropriate personal protective equipment (PPE) such as safety glasses and gloves during installation.

1. **Inspect Components:** Before installation, carefully inspect the drill body and the new DA2090MGMPR1535

insert for any damage or defects. Ensure the seating surface on the drill body is clean and free of debris.

2. **Position the Insert:** Align the replaceable tip insert with the corresponding pocket on the Kyocera DRA Magic Drill body. Ensure the insert sits flush and correctly oriented.
3. **Secure the Insert:** Use the recommended clamping screw and torque wrench to secure the insert. Refer to the specific torque specifications provided by Kyocera for the DRA Magic Drill system to prevent over-tightening or under-tightening, which can lead to insert damage or instability.
4. **Verify Stability:** After tightening, gently check the insert for any movement. It should be firmly seated without any play.
5. **Initial Run:** Perform a brief, low-speed test run to confirm proper installation and stability before commencing full operation.

OPERATION GUIDELINES

To achieve the best results and ensure safety, follow these operational guidelines when using the KYOCERA DA2090MGMPR1535 drill insert:

- **Material Compatibility:** This insert is specifically designed for steel and alloy steel applications. Using it on incompatible materials may lead to premature wear or failure.
- **Cutting Parameters:** Always adhere to the recommended cutting speeds, feed rates, and depth of cut provided by Kyocera for the specific material and machine setup. These parameters are crucial for optimal chip breaking and tool life.
- **Coolant Application:** Utilize appropriate coolant/lubricant to dissipate heat, lubricate the cutting zone, and aid in chip evacuation. Ensure adequate flow to the cutting edges.
- **Vibration Control:** Minimize machine vibration to prevent premature insert wear and improve surface finish. Ensure the workpiece is securely clamped.
- **Chip Evacuation:** Monitor chip formation and evacuation. The design promotes fine chip breaking, but ensure chips are effectively removed from the hole to prevent recutting and tool damage.

MAINTENANCE

Regular maintenance ensures the longevity and consistent performance of your KYOCERA DA2090MGMPR1535 drill insert.

- **Inspection:** Periodically inspect the insert for signs of wear, chipping, or damage. Replace inserts promptly when wear limits are reached to prevent catastrophic failure or damage to the drill body.
- **Cleaning:** After use, clean the insert and drill body to remove any accumulated chips, coolant residue, or debris. Use a soft brush and appropriate cleaning agents.
- **Storage:** Store unused or spare inserts in their original packaging in a dry, clean environment to protect them from corrosion and physical damage.
- **Drill Body Maintenance:** Regularly check the drill body for wear in the insert pocket or clamping mechanism. A worn drill body can lead to poor insert seating and reduced performance.

TROUBLESHOOTING

This section addresses common issues that may arise during the use of the drill insert and provides potential solutions.

- Issue: Premature Insert Wear**
Possible Causes: Incorrect cutting parameters (speed, feed), insufficient coolant, excessive vibration, wrong material application.
Solution: Adjust cutting parameters according to recommendations, ensure adequate coolant flow, check machine rigidity and workpiece clamping, verify material compatibility.
- Issue: Poor Chip Evacuation / Long Chips**
Possible Causes: Incorrect feed rate, insufficient coolant pressure, worn insert.
Solution: Increase feed rate within recommended limits, optimize coolant delivery, replace worn insert.
- Issue: Poor Hole Quality / Surface Finish**
Possible Causes: Worn insert, excessive vibration, incorrect cutting parameters, unstable setup.
Solution: Replace insert, reduce vibration, optimize cutting parameters, ensure rigid machine and workpiece setup.
- Issue: Insert Breakage**
Possible Causes: Excessive feed rate, impact, insufficient clamping, material hardness variations.
Solution: Reduce feed rate, ensure smooth entry/exit, verify proper insert clamping torque, check material consistency.

TECHNICAL SPECIFICATIONS

Specification	Detail
Model Number	DA2090MGMPR1535
Brand	KYOCERA
Material	Carbide
Finish Type	Megacoat
Grade	PR1535
Cutting Edges	1
Drill Diameter (Nominal)	0.823 inches
Surface Recommendation	Alloy Steel
Unit Count	1.0 Count
Package Dimensions	2.56 x 1.77 x 1.06 inches
Item Weight	1.33 ounces
Manufacturer	Kyocera Precision Tools Inc.

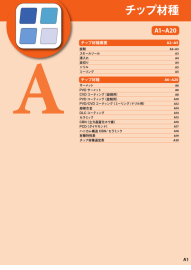


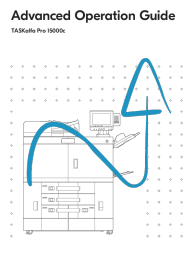
WARRANTY AND SUPPORT

KYOCERA products are manufactured to high standards of quality and performance. For specific warranty information regarding the DA2090MGMPR1535 Replaceable Tip Drill Insert, please refer to the documentation provided with your purchase or visit the official Kyocera Precision Tools website. For technical support, product inquiries, or assistance with troubleshooting, please contact Kyocera customer service directly. Contact details can

typically be found on the manufacturer's website or product packaging.

Manufacturer Website: www.kyocera-cuttools.com

Related Documents - DA2090MGMPR1535

	<p>Kyocera Cutting Tool Materials Guide</p> <p>A comprehensive guide to Kyocera's cutting tool materials, detailing various grades for different applications in turning, milling, drilling, and more. Includes material properties, applications, and selection charts.</p>
	<p>Product Index - Kyocera Machining Tools</p> <p>Comprehensive index of Kyocera machining tools, including inserts, toolholders, and accessories, with detailed product descriptions and page references.</p>
	<p>Kyocera 7135 Smartphone: Enterprise Resource Guide & Features</p> <p>Comprehensive guide to the Kyocera 7135 smartphone, detailing its features, enterprise solutions, accessories, software, case studies, and FAQs for business professionals.</p>
	<p>KYOCERA Net Manager Embedded: Installation and User Guide</p> <p>Comprehensive guide to installing, configuring, and using the KYOCERA Net Manager Embedded terminal software for managing print jobs, accounting, and device operations on Kyocera multifunction printers.</p>
	<p>KYOCERA TASKalfa Pro 15000c Advanced Operation Guide</p> <p>Comprehensive guide for professional users on the operation, maintenance, and troubleshooting of the KYOCERA TASKalfa Pro 15000c production printer. Essential for efficient use and problem resolution.</p>



[KYOCERA Microsoft Connector Setup and Operation Guide](#)

This guide provides comprehensive instructions for setting up and operating the KYOCERA Microsoft Connector, enabling seamless document scanning and printing with Microsoft SharePoint, Exchange, and OneDrive for Business from Kyocera HyPAS-enabled MFPs.