Accusize Industrial Tools 2988-0001

Accusize Industrial Tools

1" 9-Piece Indexable Carbide Turning Tool Set

Model: 2988-0001

1. Introduction

This manual provides essential information for the safe and effective use of your Accusize Industrial Tools 1" 9-Piece Indexable Carbide Turning Tool Set, Model 2988-0001. This set is designed for various metalworking operations on a lathe, including turning, facing, parting off, grooving, boring, and threading. Each tool holder is equipped with a C6 TiN-coated carbide insert, suitable for machining steel and stainless steel.

2. Safety Information

Always prioritize safety when operating machinery and using cutting tools. Failure to follow safety guidelines can result in serious injury or damage to equipment.

- **Wear appropriate personal protective equipment (PPE):** This includes safety glasses or a face shield, gloves, and appropriate clothing to prevent entanglement with rotating machinery.
- **Ensure proper machine setup:** Verify that the workpiece is securely clamped and the tool holder is correctly installed and tightened in the tool post.
- **Use correct cutting parameters:** Refer to the cutting speed and feed rate guidelines provided to avoid excessive tool wear, breakage, or poor surface finish.
- **Handle inserts with care:** Carbide inserts are sharp and brittle. Use caution when changing or handling them.
- **Keep work area clean:** Remove chips and debris regularly to prevent hazards.
- **Disconnect power:** Always disconnect power to the machine before performing maintenance, changing tools, or making adjustments.

3. Package Contents

Your Accusize 1" 9-Piece Indexable Carbide Turning Tool Set includes the following components, neatly organized in an aluminum fitting case:

- 9 x Indexable Turning Tool Holders (1" shank size)

- 9 x C6 TiN Coated Carbide Inserts (pre-installed)
- 9 x Hex Screws (for inserts)
- 1 x Hex Key (for insert screws)
- 1 x Aluminum Fitting Case
- 1 x Specification Card with cutting parameters
- 1 x Inspection Certificate



Figure 3.1: Accusize 9-piece indexable carbide turning tool set in its aluminum storage case.



Figure 3.2: Accusize 9-piece indexable carbide turning tool set components laid out.

4. Product Specifications

Feature	Detail
Product Dimensions	11.42 x 15.35 x 2.56 inches
Item Weight	18.02 pounds
Manufacturer	Accusize Co., Ltd.
Item Model Number	2988-0001
Shank Size	1 inch
Insert Grade	C6 TiN Coated Carbide
Application	Turning, Facing, Parting Off, Grooving, Boring, Threading
Material Compatibility	Steel, Stainless Steel

The set includes a comprehensive tool holder lineup: QA16R-40D, SER1000D16, SCLCR16-4D, SCLCL16-4D, SDNCN16-3D, SWGCR16-4D, SCDCR16-4D, SCBCR16-4D, and S16T-SCLCR4.



Figure 4.1: Detailed view of tool holders with model numbers and insert types.

5. Setup and Installation

Proper setup is crucial for optimal performance and safety. Follow these general steps for installing the tool holders and inserts:

1. **Select the appropriate tool holder:** Choose the tool holder based on the desired machining operation (e.g., turning, facing, threading).
2. **Inspect the insert:** Ensure the carbide insert is clean, free from damage, and correctly oriented for the cutting direction.
3. **Install the insert:** Place the insert into the pocket of the tool holder. Use the provided hex screw and hex key to secure the insert firmly. Do not overtighten, as this can damage the insert or screw.
4. **Mount the tool holder:** Secure the tool holder in the lathe's tool post. Ensure it is clamped tightly to prevent movement during machining. The tool tip should be set to the center height of the workpiece.
5. **Verify stability:** Before starting any operation, manually check that the tool holder and insert are stable and properly aligned.



Figure 5.1: Close-up of tool holders and accessories in the case.



Figure 5.2: Close-up of a carbide insert mounted on a tool holder.

6. Operating Instructions

The Accusize 9-piece set provides versatility for various lathe operations. The following outlines general operational

considerations:

- **Turning:** Use tools like SCLCR16-4D or SCLCL16-4D for general turning operations, reducing the diameter of the workpiece.
- **Facing:** Tools such as SCDCR16-4D can be used for facing, creating a flat surface on the end of the workpiece.
- **Parting Off:** The QA16R-40D tool is designed for parting off, separating a section of the workpiece.
- **Threading:** The SER1000D16 tool is specifically for threading operations, creating external threads on the workpiece.
- **Boring:** The S16T-SCLCR4 boring bar is used for internal turning operations, enlarging existing holes.
- **Chamfering:** Tools like SCDCR16-4D can also be used for chamfering, creating a beveled edge.

Refer to the included specification card for recommended cutting speeds and feed rates for different materials. Adjust these parameters based on your specific machine, workpiece material, and desired finish.

Your browser does not support the video tag.

Video 6.1: Demonstration video showcasing the Accusize 9-piece 1-inch shank indexable turning tool set in operation, performing various machining tasks like turning, facing, threading, and chamfering on a lathe.



Figure 6.1: Recommended cutting speeds and feed rates for various materials.

7. Maintenance

Regular maintenance ensures the longevity and performance of your turning tool set:

- **Cleaning:** After each use, clean tool holders and inserts to remove chips, coolant, and debris. Use a brush or compressed air.
- **Inspection:** Regularly inspect inserts for wear, chipping, or damage. Worn inserts should be rotated to a fresh cutting edge or replaced. Inspect tool holders for any signs of damage or deformation.
- **Storage:** Store the tool set in its original aluminum case in a dry, clean environment to prevent rust and damage.

- **Lubrication:** Lightly oil the tool holder screws periodically to prevent seizing.

8. Troubleshooting

Here are common issues and their potential solutions:

Problem	Possible Cause	Solution
Poor surface finish	Worn or chipped insert, incorrect cutting parameters, machine vibration	Replace/rotate insert, adjust speed/feed, check machine for rigidity
Excessive tool wear	Too high cutting speed, insufficient coolant, hard material	Reduce speed, increase coolant flow, use appropriate insert for material
Tool breakage	Excessive feed rate or depth of cut, workpiece chatter, improper clamping	Reduce feed/depth, ensure rigid setup, check clamping
Chatter/Vibration	Tool overhang too long, loose tool holder, incorrect cutting parameters	Minimize overhang, tighten tool holder, adjust speed/feed

9. Replacement Parts and Accessories

Replacement carbide inserts for this set are available. The replacement insert kit item number is**2988-0001INSERTS**. Ensure you use genuine Accusize replacement parts to maintain optimal performance and compatibility.

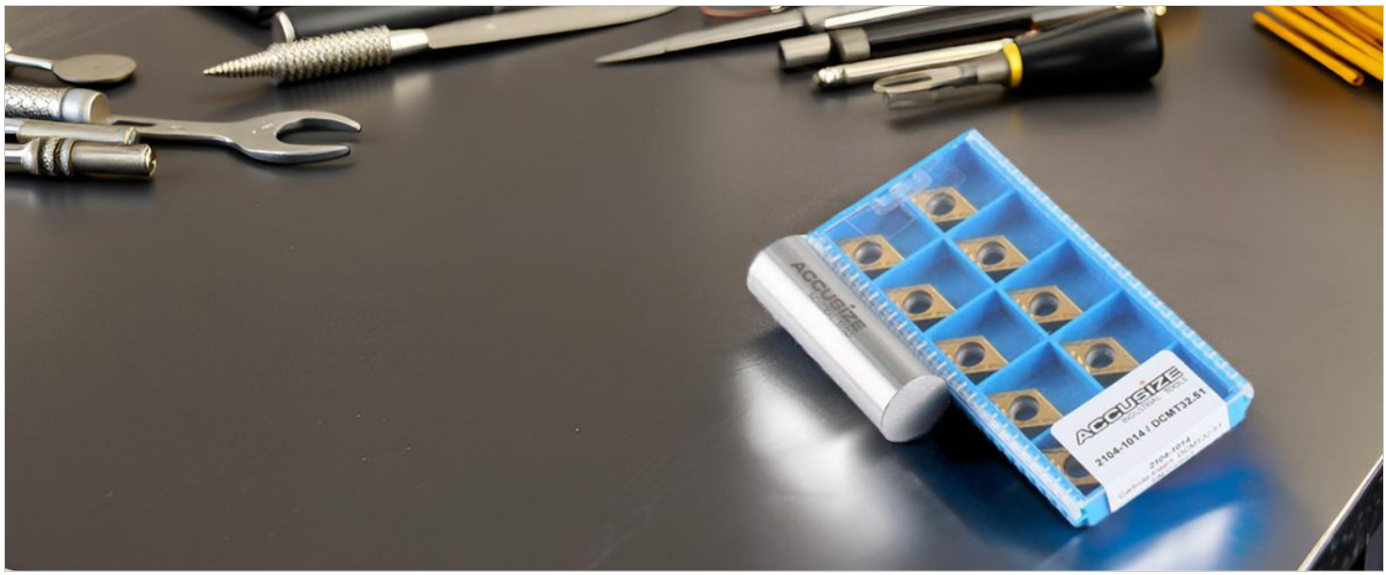


Figure 9.1: Example of Accusize replacement carbide inserts.

10. Warranty and Support

Accusize Industrial Tools products are manufactured to high-quality standards. For information regarding warranty coverage, technical support, or service, please refer to the official Accusize Industrial Tools website or contact their customer service department. Keep your purchase receipt as proof of purchase.
For further assistance, visit the Accusize Industrial Tools Store on Amazon.

© 2023 Accusize Industrial Tools. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question