



MBCSACAVP-7SETSFORSTAINLESS

## Generic 12MM Shank Nickel Plated CNC Lathe Turning Tool Holder Set Instruction Manual

### 1. INTRODUCTION

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This instruction manual provides essential information for the safe and effective use, setup, operation, and maintenance of your Generic 12MM Shank Nickel Plated CNC Lathe Turning Tool Holder Set. Please read this manual thoroughly before using the product to ensure proper handling and to prevent damage or injury. Keep this manual for future reference.

### 2. PRODUCT OVERVIEW

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The Generic 12MM Shank Nickel Plated CNC Lathe Turning Tool Holder Set is designed for precision machining operations on CNC lathes, specifically optimized for stainless steel. This comprehensive set includes various tool holders and corresponding carbide inserts, enabling external turning, threading, grooving, and cutting applications. The tools feature a nickel-plated finish for enhanced durability and rust resistance, along with anti-vibration properties for stable performance.



Image: The complete set of 7 lathe turning tool holders, carbide inserts, and wrenches, ready for use.

### 3. COMPONENTS INCLUDED

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Your package includes the following items:

- 7 x Turning Tool Holders (various models)
- 7 x Applicable Carbide Inserts (pre-installed or separate)
- 3 x Wrenches (for insert installation and removal)
- 1 x Storage Case

# 12MM Shank Nickel Plated Turning Tool Holders with Case for Stainless Steel Machining

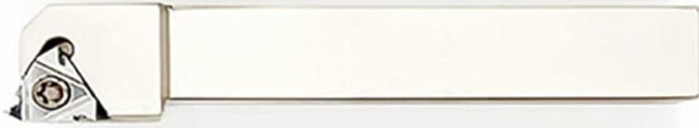


Image: The tool holder set neatly organized within its protective storage case.

**MGEHR1212-2**  
(MGMN200)



**SER1212H16**  
(16ER AG60)



**SDNCN1212H11**  
(DCMT11T304)



**SDJCR1212H11**  
(DCMT11T304)



**SWLCR1212H06**  
(WCMT06T308)



**SCLCR1212H09**  
(CCMT09T304)



**SCLCL1212H09**  
(CCMT09T304)



Image: A detailed view of each turning tool holder, labeled with its specific model number for identification.

#### 4. SPECIFICATIONS

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Attribute	Detail
Model Numbers (Tool Holders)	SCLCR1212H09, SCLCL1212H09, SDNCN1212H11, SDJCR1212H11, SER1212H16, SWLCR1212H06, MGEHR1212-2
Usage	External turning, threading, grooving, cutting (optimized for stainless steel)
Hardness	HRC45-50
Material	High-Speed Steel (HSS)
Coating	TiAlN
Surface Treatment	Quenching and Hardening with nickel plating finished
Features	Anti-vibration, rust-proof, stable, durable
Package Dimensions	0.39 x 0.39 x 0.39 inches
Item Weight	1.1 Pounds
Item Model Number	MBCSACAVP-7SETSFORSTAINLESS
Manufacturer	teimidanzishangwu



Unit of Measure: mm

Holder Model	Insert Model	Head Width (f)	Full Length (L)	Head Length (L1)	Shank Diameter (h1)	Angle $\alpha^\circ$	Screw	Wrench
MGEHR1212-2	MGMN200	12	100	15	12		M5x20	L4
SER1212H16	16ER AG60	16	100	20	12	10°	M3.5x12	T15
SDNCN1212H11	DCMT11T304	6	100	14	12	0°	M4x10	T15
SDJCR1212H11	DCMT11T304	16	100	20	12	0°	M4x10	T15
SWLCR1212H06	WCMT06T308	16	100	20	12	0°	M3.5x10	T15
SCLCR1212H09	CCMT09T304	16	100	18	12	0°	M4x10	T15
SCLCL1212H09	CCMT09T304	16	100	18	12	0°	M4x10	T15

Image: A technical diagram and table providing detailed dimensions and specifications for each tool holder and its corresponding insert.

## 5. SETUP

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### 5.1. Inspecting Components

Before setup, carefully inspect all tool holders, inserts, and wrenches for any signs of damage or manufacturing defects. Do not use damaged components.

### 5.2. Installing Carbide Inserts

1. Select the appropriate carbide insert for your desired operation and material (e.g., stainless steel).
2. Place the insert into the designated pocket on the tool holder. Ensure it sits flush and correctly oriented.
3. Use the provided wrench to tighten the clamping screw. Tighten securely to prevent insert movement during operation, but do not overtighten, as this can damage the insert or screw.
4. Verify that the insert is firmly seated and stable.

### 5.3. Mounting Tool Holders on Lathe

1. Mount the assembled tool holder into the tool post of your CNC lathe.
2. Ensure the tool holder is securely clamped in the tool post to prevent any movement or vibration during machining.
3. Adjust the tool height and position according to your lathe's specifications and the specific machining operation.

## 6. OPERATING INSTRUCTIONS

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Always refer to your CNC lathe's operating manual for specific machine controls and safety procedures. The following are general guidelines for using these turning tools:

### 6.1. Material Considerations (Stainless Steel)

This tool set is designed for stainless steel machining. Stainless steel typically requires:

- **Lower Cutting Speeds:** Compared to mild steel, stainless steel often requires reduced cutting speeds to manage heat generation and prevent work hardening.
- **Positive Rake Angles:** Inserts with positive rake angles can help reduce cutting forces and improve chip evacuation.
- **Effective Coolant:** Use a high-quality cutting fluid to dissipate heat, lubricate the cutting zone, and aid in chip removal.
- **Rigid Setup:** Ensure maximum rigidity in your setup to minimize vibration and chatter, which can lead to poor surface finish and premature tool wear.

### 6.2. Machining Operations

- **External Turning:** Use the appropriate tool holder and insert for general turning operations to reduce workpiece diameter or create contours.
- **Threading:** Select the threading tool holder and insert for cutting external threads. Ensure correct pitch and depth settings on your CNC program.
- **Grooving:** Utilize the grooving tool holder and insert for creating grooves or cut-offs.
- **Cutting:** The tools can be used for general cutting and facing operations.

Always start with conservative cutting parameters and adjust as needed based on material, machine rigidity,

and desired surface finish.

## 7. MAINTENANCE

### 7.1. Cleaning

After each use, clean tool holders and inserts to remove chips, coolant residue, and debris. Use a brush or compressed air. Ensure all components are dry before storage to prevent rust.

### 7.2. Inspection

Regularly inspect inserts for wear, chipping, or breakage. Worn inserts should be indexed to a fresh cutting edge or replaced. Check tool holders for any signs of damage, bending, or excessive wear on the insert pocket.

### 7.3. Storage

Store the tool set in its original protective case in a dry environment to prevent corrosion and physical damage. Proper storage extends the lifespan of the tools.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Poor Surface Finish	Worn insert, incorrect cutting parameters, tool chatter, insufficient coolant.	Index or replace insert. Adjust speeds/feeds. Check for rigid setup. Increase coolant flow.
Excessive Tool Chatter	Insufficient rigidity in setup, long tool overhang, incorrect cutting parameters.	Ensure tool holder is securely clamped. Reduce tool overhang. Adjust speeds/feeds.
Premature Insert Wear	Incorrect cutting parameters (too high speed/feed), lack of coolant, wrong insert grade for material.	Reduce cutting speed/feed. Ensure adequate coolant. Verify insert grade is suitable for stainless steel.
Broken Insert	Overtightening, excessive impact, incorrect feed rate, material hardness variation.	Ensure proper torque when tightening. Use appropriate feed rates. Inspect workpiece material.

## 9. SAFETY INFORMATION

Working with machine tools and cutting tools involves inherent risks. Always prioritize safety.

- **Personal Protective Equipment (PPE):** Always wear safety glasses or a face shield to protect against flying chips. Gloves are recommended when handling tools, but should not be worn near rotating machinery.
- **Machine Safety:** Ensure your CNC lathe is properly maintained and all safety guards are in place. Never operate machinery without proper training.
- **Tool Handling:** Cutting inserts are extremely sharp. Handle them with care to avoid cuts.
- **Workpiece Security:** Ensure the workpiece is securely clamped in the chuck or fixture before starting any operation.
- **Emergency Stop:** Know the location and operation of your machine's emergency stop button.
- **Clear Work Area:** Keep your work area clean and free of clutter to prevent accidents.

## 10. WARRANTY AND SUPPORT

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For warranty information, technical support, or replacement parts, please contact the manufacturer, teimidanzishangwu, or your original point of purchase. Please have your product model number (MBCSACAVP-7SETSFORSTAINLESS) and purchase details available when contacting support.