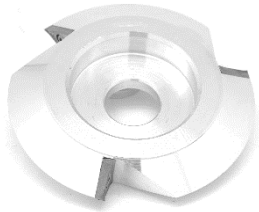


# PRODUCT'S INSTRUCTION MANUAL



**Model Number : 4" Triangle Cutter 16mm (MP21-6-4)**

## TABLE OF CONTENTS

1. Product composition & specification
2. Manufacture information
3. Unpacking and assembly
4. Maintenance
5. Safety instruction
6. Safety precautions
7. Kick back



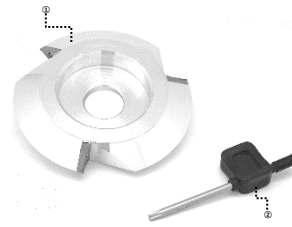
**ORIGINAL INSTRUCTION PROVIDED BY MANPA TOOLS**



**PLEASE READ ALL MANUAL FOR SAFETY BEFORE USING THIS TOOL**

[www.manpatools.com](http://www.manpatools.com)

## 1. Product composition & specification



### Basic composition

- ① 4" Triangle Cutter 16mm
- ② Star Wrench

Note : text, diagrams and data are correct at time of printing. In the interests of continuous improvement of our products, technical specifications are subject to alteration without prior notice

### TECHNICAL SPECIFICATIONS :

|                                    |   |
|------------------------------------|---|
| <b>Max. Blade diameter :</b> 99 mm | <b>Disc Bore size :</b> 22.2 mm (7/8")          |
| <b>Max. Carving depth :</b> 20 mm  | <b>Weight :</b> 0.25 Kg (without angle grinder) |
| <b>Max. RPM :</b> 15,000 rpm       | <b>Overall Length :</b> -                       |
| <b>Power :</b> 630 ~750 Watt       | <b>Working width :</b> 20 mm                    |
| <b>Model :</b> MP21-6-4            | <b>Blade width :</b> 1 - 16 mm                  |
|                                    | <b>Number of teeth :</b> 3 EA                   |

## 2. Manufacture information

- Manufacturer : Manpatools Corporation
- Country of manufacture : Made in Republic of Korea
- Address : 700-20 Manse-ro, Yangseong-myeon, Anseong, Gyeonggi-do, Korea
- Telephone : (Tel) +82-31-676-9212 (Phone) +82-10-8777-5735
- Website : [www.manpatools.com](http://www.manpatools.com)

## 3. Unpacking and assembly

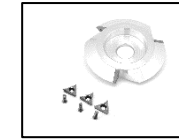


Install the angle grinder : 4" or 4" -1/2  
Use the Original Flange & Nut (7/8" Bore Size)  
It should be connected & tighten exactly.

## 4. Maintenance



If each part attached bolt is loosen, Periodically check and tighten.



When the cutter blade wears out, Please use the replacement.



A grinder holder is recommended for safety work.

### 4-1. How to replace the Carbide

#### Replacing and setting blade and carbide teeth

For an optimum operation of tools, the blade and carbide teeth must be properly set up. Also, when the blade is worn out, use the star wrench provided with the produce to replace the carbide teeth. Replacement instructions are as follows.

- First, clean off any debris from the surface where carbide teeth will be placed.
- Place the carbide teeth on the blade, and use star wrench to fasten the bolt tightly.
- Set up all 3 carbide teethes in the same way.

- Be careful not to get the body in contact with the blade or belt. It may result in severe injury.
- Do not leave the tool unattended while rotating.
- Do not become careless once you become familiar with the tool. Carelessness may lead to another accident.

- After work, always clean the tool and the work area.

#### d. Safety matters about tools.

- Please maintain the rotation speed of blade at above 11000RPM. If the rotation speed of blade is lowered, the surface of wood may not be smooth, and may bear too much load on blade and carbide teeth.
- Do not remove any safety devices or parts installed on tools, but use them together. It can prevent any sudden accidents and protect your body.
- In case of any abnormality while using the product, stop immediately and inspect the product. If repair is needed, inquire qualified personnel or designated repair shops.
- If consumables are worn out or parts are broken, please use authentic parts.

## 7. Kick Back

It is the phenomenon where the blade moves forcefully to the direction that the user does not want as the part of blade that rotates in reverse direction touches the object. The reverse direction of rotating blade as seen in Image 1 is called kickback zone. When this part gets in contact with the object, the undesired part. An instant kickback may damage the object, blade and the belt, or even result in an accident in the worst scenario. Kickback occurs as a result of misuse of electric tool and inaccurate operation procedure, and understanding proper precautions given below can avoid accidents in advance.

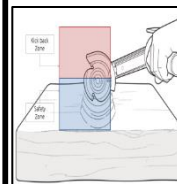


Image 1.  
Kickback zone

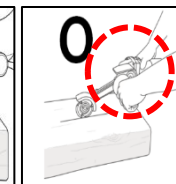


Image 2.  
Prevent kickback by holding safety handle

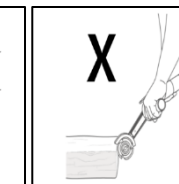


Image 3.  
Use caution when working on corners

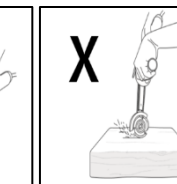


Image 4.  
Kickback occurs when vertical working

- ▶ Never use power tools in wet or damp conditions.
- ▶ Never use a tool that is damaged or malfunctioning in any way.
- ▶ Make sure cutters are clean, sharp and securely in place. Never use bent, broken, or warped cutters.
- ▶ Never rush what you are doing. Always pay close attention. Don't let anything distract you. Think ahead.
- ▶ When using hand-held power tools, always keep a firm grip with both hands. Losing control creates a hazardous situation.
- ▶ Always use the right tool for the right job. No substitutions allowed.
- ▶ Always unplug, clean and store the tool in a safe, dry place.
- ▶ Make sure that the cutter blade or the belt is not in direct contact with the user. Contact may lead to serious injury.
- ▶ Please be aware that the cutter can generate rebound force (quick back) due to its rotation direction.

## 6. Safety precautions

Please read and understand all safety precautions, instructions, explanations and specifications provided with this product thoroughly for safe work and accident prevention.

- a. Work area safety user loses control of the tool due to kickback, and it jumps up or cuts any
  - Always keep the light in work area bright.
  - Always keep the work area well ventilated.
  - Do not work in the environment with explosion hazard.
  - Restrict access of people near the work area.
- b. Electrical appliance safety
  - When using electric tools, clean off any debris in the socket, and check for any damages on the wire. If any damage is discovered, replace the wire and use.
  - Do not modify electric tool, and work safety according to the instructions provided by the electric tool.
  - Do not expose electric tool to rain or wet environment, and do not use if exposed. It may result in accident due to electric shock.
  - Always unplug when inspecting or not using electric tool.
- c. Personal safety
  - When working, wear all safety equipment such as mask, goggles, gloves and safety clothing. Safety equipment can protect the body and reduce damage from any possible accident.
  - When working, fasten the woodwork. securely so it doesn't shake or fall.
  - When inspecting or transporting the tool, always unplug.
  - Always use the tool carefully and safely at the best condition. Stop operation if you feel tired or under the influence of alcohol or drug. Resume after getting enough rest.

## 5. Safety instruction

Use of tools is recommended by someone at least 18 years old or older with the experience of using grinder in woodcraft or woodcarving industry

Also, always follow the safety precautions during use. If you never used a grinder, we recommend that you receive instructions and safety training from someone that can handle grinder proficiently.

- a. Before supplying power, ensure that the on/off switch is in the OFF position and check if bolts in each part are securely fixed, and the belt safety cover and handles are installed properly. Hold the handle on the body with the left hand, hold the grinder with the right hand, and supply power while holding it safely with both hands.
- b. When the power is turned on, the power is delivered from drive gear to vertical gear where the blade is, through the timing belt. After it starts to operate, check if timing belt delivers power properly, and begin carving by getting the blade close to the surface of wood.
- c. Check for any debris likes pebbles or sand on wood and remove during work. Also, be careful with kickback.
- d. During operation, if the tool is forcibly used, the teeth of the timing belt may be worn or cut off. Work safely by giving enough time for the tool to carve out the wood.
- e. When done with work or pausing, turn the power off and hold the grinder with both hands until the residual rotation finishes. Put it down when it completely stops.
- f. Always unplug when not working.

**WARNING : Read the product guide provided with the product, and follow all precautions. Please do not discard the produce guide but keep it.**

- ▶ Always wear safety goggles or safety glasses with side shields. Use a dust mask for dusty operations, and wear hearing protection if you'll be using the tool for an extended period of time.
- ▶ Dress right, and remember that looks don't count. No loose-fitting clothing, no neckties, no jewelry, no dangling objects of any kind. Long hair must be tied back out of your way. Non-slip footwear is recommended.
- ▶ Never use power tools if you are tired, sick, distracted, or under the influence of drugs or alcohol.
- ▶ Make sure your work area is neat and clean and free of any debris that might get in your way or be ignited
- ▶ Before you work, make sure appropriate, secure work with a clamp or vise to keep it from slipping.
- ▶ Before you plug in any power tool, make sure the power switch is off.
- ▶ Be sure all appropriate guards are in place and working.
- ▶ Always turn off and unplug the tool before you make any adjustments or change accessories.
- ▶ Never use any accessory except those specifically supplied or recommended by the manufacturer.