

# XEBEC Ceramic Stone™ Instruction Manual

## Mounted Point/Meister Finish/Heat-Resistant/Diamond/Flexible Shaft/Pencil

Read this instruction manual before using this product. Failure to do so can result in serious injury or death. This instruction manual must be kept in the vicinity of the machine at all times so that it is accessible to the operator.

### Warning

Be sure to observe the contents of this manual. Using the product in a way that is not consistent with the contents of this manual may result in serious injury or death.

#### ⚠ WARNING

##### Warnings common to all products

- Fragments, cutting particles, burrs, etc., occur due to processing with this product, and these can pierce the eyes or skin of workers causing loss of sight and injury.
- Dust occurring as a result of processing with this product can cause lung damage, irritate skin, and bring on allergic reactions.

##### Only for **Meister Finish** (rod type) and **Mounted Point**

- Even if there is no problem at the pre-work check, if vibration or other abnormality occurs during use, discontinue use immediately. Continuing to use the product when there is an abnormality presents the risk of operator loss of sight or injury resulting from this product detaching from the rotating tool, failure or detaching of the grindstone part, workpieces breaking, etc.
- Machining at a constant point for a prolonged time causes the tip of the tool to become hot which presents the risk of operator loss of sight or injury resulting from failure or detaching of the grindstone part. Adjust the processing times on locations being processed so that it does not become hot. Also be careful not to touch the locations being processed directly with bare hands after use.
- Use the tool suitable to the hole diameter. There is the risk of operator loss of sight or injury resulting from this product detaching from the rotating tool, failure or detaching of the grindstone part, parts breaking, etc., if a tool not suitable to the hole diameter is used, such as if the grindstone diameter is too small, etc.
- If the rotational speed exceeds the maximum rotational speed, there is the risk of operator loss of sight or injury resulting from this product detaching from the rotating tool, failure or detaching of the grindstone part, workpieces breaking, etc.

#### NOTICE

Furthermore, as a result of the situations described above, there is also the risk of damage to machining tools, jigs, and workpieces.

## Operator Safety Protection

### Use of protective equipment

Wear personal protective gear including goggles, masks, gloves, and earmuffs to prevent loss of sight, injury, or lung damage caused by damaged parts flying off the product. Wear clothing with long sleeves or other clothing that does not expose the skin, and fasten the cuffs and hems tightly.

### Attention to the work area

- Install an enclosure so that persons other than the operator do not enter the work area, and ensure that all persons, if any, in the work area are wearing protective equipment.
- Keep the floor of the work area clean at all times to prevent the risk of slipping or tripping on dust, cutting particles, oil, water, or other substance.
- There is the risk of fire caused by heating, sparks, or other factor resulting from use of the product. Do not use the product close to a flammable liquid or in an explosive atmosphere. Also be sure to enact fire prevention measures.

### Precaution regarding cutting particles

Fragments, cutting particles, and other substances generated during work will be scattered into the surrounding area. Wear a dust mask and be sure to use a dust collector or other means to collect the particles.

## Features

- This product is optimal for removal and polishing of post-machining fine burrs with a burr root thickness of 0.2 mm or less.
- It is possible to easily mold the tip of the tool to suit the shape of the workpiece. Use a diamond disc blade to mold.
- For workpieces with a hardness of up to HRC 57, any material can be worked, including aluminum and steel.
- The entire grindstone surfaces of the head of the Mounted Point, Meister Finish (rod type), Diamond, and Pencil are capable of grinding.
- It is possible to use the Meister Finish (rod type and stick type), Heat-Resistant, Diamond, and Soft by holding them directly with your hand. You can improve workability by holding the grindstones in the optional "Stick holder". (Refer to "When this product is not to be rotated for use".)

## When this product is to be rotated for use

### **Meister Finish** (rod type) and **Mounted Point**

#### Pre-Work Check

Perform test operation for 1 minute or more before starting work, and for 3 minutes or more after the rotating tool or product was changed, and check that there is no looseness, vibration, or other abnormality of the machine and the part where the product is installed.

#### Precautions for Use

##### Installation onto a rotating tool

#### ⚠ WARNING

When installing onto a rotating tool, insert the tool part of "Meister Finish (rod type)" up to 30 mm or more and the tool shank of "Mounted Point" type up to 20 mm or more, ensuring they are gripped properly. If gripped with a grip length less than the specified one, this product may detach from the rotating tool due to vibrations during the machining. There is the risk that this may cause operator loss of sight or injury.

#### ⚠ WARNING

Use while keeping under the maximum rotational speed. If the product is used in excess of the maximum rotational speed, there is the risk of operator loss of sight or injury due to the product breaking.

- The maximum rotational speed for the "Mounted Point" type is 60000 min<sup>-1</sup> (for AX-PM-5RF, however, it is 30000 min<sup>-1</sup>).
- The maximum rotational speed for "Meister Finish (rod type)" is 30000 min<sup>-1</sup> (when the total length of the tool is 50 mm or less).

#### ⚠ WARNING

When using a "Meister Finish (rod type)" in a rotating tool, cut to a length of 50 mm or less. When this product is longer than 50 mm and is used in a rotating tool, there is the risk of operator loss of sight or injury resulting from this product detaching from the rotating tool, grindstone failure, etc.

- When installing, use a chuck that is correct for the diameter of the gripping part. Do not use a "Meister Finish (rod type)" with a diameter of less than 2 mm in a rotating tool.

## When this product is not to be rotated for use

### **Meister Finish** (rod type and stick type), **Heat-Resistant**, **Diamond**, **Soft**, **Pencil**

#### Precautions for Use

##### Fitting into the holder

Use with the holder specified by XEBEC, inserting one stone at a time. (The holder may clog if 2 or more stones are inserted at a time.)

##### Installation onto a vibratory tool

- When using vibratory tools, be sure to read the precautions for use and the operating instructions included with the tool.
- "Soft" types (BS-2006M and PBS-30M) cannot be used with vibratory tools.

## How to Use

### Dry and wet machining

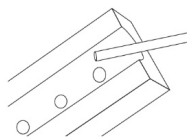
This tool can be used for both dry and wet machining, however wet machining prevents clogging and improves machining efficiency.

### Truing, dressing

If the grindstone shape became deformed as a result of use, rotate the tool while gently pressing the head part onto a diamond disc blade to correct the shape.

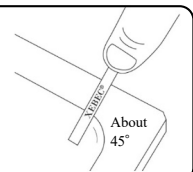
#### When using a rod type

- The rod type can be used efficiently by attaching it to a rotating tool (motorized or pneumatic).
- The entire surface (tip and sides) of the rod type can be used.
- When using the tip, keep the product at about 45 degrees to the surface being worked.



#### When using a stick type

- The stick type can be used efficiently by attaching it to a vibratory tool (motorized, ultrasonic or pneumatic).
- When using a stick type in an ultrasonic vibratory tool, we recommend the "Heat-Resistant". It has thermal resistance up to 200°C.
- When using the stick type, use the tip and keep the product at about 45 degrees to the surface being worked. \*The "Diamond" type has diamonds embedded over the entire surface, so you can also polish using the side (belly) of the product.



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STONE 20201207E  
Created in December 2020