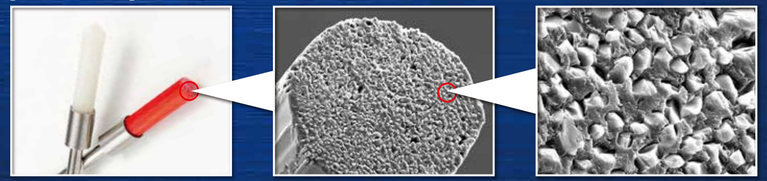
# Secret of Performance

## Unparalleled"XEBEC Ceramic Fiber Tools"

There are secrets to the unmatched material.
Each brush bristles, stone heads, and ceramic stones are made by binding 1,000 ceramic fibers, each a few dozen microns in diameter.
The tips of each of these micro fibers perform as continuous cutting edges, and these solid ceramic fibers promise stable and consistent grinding performance.

Only 1 Patented P

**[brush bristle]**



# Amazing Aspects

## 1 Superior Edge Quality

- No worries about rounding edges, or scratches or damage to periphery.
- Also gives peace of mind when fine finishing by hand.

## 2 Surface Roughness Ra=0.1μm

- Achieves polishing performance of Ra = 0.1μm or better, suitable for use in mold polishing processes.
- XEBEC Brush™ is optimal for adapting to the shape of curved parts.

## 3 0.5mm Ultrafine Deburring

- Ideal for point processing because can be formed to fit the tool tip to the workpiece shape.
- Allows processing of parts with narrow crevices and corners that cannot be reached with conventional tools.

XEBEC TECHNOLOGY CO.,LTD.

# Product lineup

### XEBEC Brush™ End type

| Product code | Ceramic Fiber rod (color) | Brush diameter | Ceramic Fiber rod Length | Shank diameter | Maximum rotation speed |
|---|---|---|---|---|---|
| A11-EB06M | Red | ϕ5mm | 20mm | ϕ3mm | 12,000min-1 |
| A21-EB06M | White | ϕ5mm | 20mm | ϕ3mm | |

### XEBEC Brush™ Crosshole

| Product code | Target bore diameter of brush insert | Full length | Brush diameter | Ceramic Fiber rod Length | Shaft diameter | Shank diameter | Maximum rotation speed |
|---|---|---|---|---|---|---|---|
| CH-A12-1.5M | ϕ3.5～5mm | | ϕ1.5mm | 50mm | ϕ2.5mm | ϕ 3mm | 20,000min-1 |
| CH-A12-3M | | | ϕ 3mm | 50mm | ϕ 4mm | ϕ 3mm | 12,000min-1 |
| CH-A33-3M | ϕ 5～8mm | 130mm | ϕ 3mm | 60mm | ϕ 4mm | ϕ 3mm | 14,000min-1 |

### XEBEC Stone™ Flexible Shaft

| Product code | | | Head size | Head shape | Maximum rotation speed |
|---|---|---|---|---|---|
| Blue #800 | Orange #400 | Gray #220 | | | |
| CH-PB-3B | CH-PO-3B | CH-PM-3B | ϕ3mm | Ball | 15,000min-1 |
| CH-PB-3R | CH-PO-3R | CH-PM-3R | ϕ3×3mm | Cylinder | |
| CH-PB-4B | CH-PO-4B | CH-PM-4B | ϕ4mm | Ball | 13,000min-1 |
| CH-PB-4R | CH-PO-4R | CH-PM-4R | ϕ4×4mm | Cylinder | |
| CH-PB-5B | CH-PO-5B | CH-PM-5B | ϕ5mm | Ball | 12,000min-1 |
| CH-PB-5R | CH-PO-5R | CH-PM-5R | ϕ5×5mm | Cylinder | |
| - | - | CH-PM-5R-C01 | ϕ5×10mm | Cylinder | 8,000min-1 |
| CH-PB-6B | CH-PO-6B | CH-PM-6B | ϕ6mm | Ball | 10,000min-1 |
| - | - | CH-PM-10B | ϕ10mm | Ball | 6,000min-1 |

### XEBEC Stone™ Mounted Point

| Product code | Head diameter | Head length | Equivalent grit | Shank size | Maximum rotation speed |
|---|---|---|---|---|---|
| AX-PM-5RF | ϕ5mm | 8mm | #220 | ϕ3mm×30mm | 30,000min-1 |
| AX-PM-3R | ϕ3mm | 20mm | #220 | ϕ3mm×20mm | 60,000min-1 |
| AX-PM-6T | ϕ6mm | 20mm | #220 | ϕ3mm×20mm | 60,000min-1 |

### XEBEC Ceramic Stone™ Meister Finish

**Stick type**

| Size (mm) TxWxL | Yellow #1500 | Red #1200 | White #1000 | Blue #800 | Black #600 | Orange #400 | Light brown #300 | Dark brown #220 | Violet #120 |
|---|---|---|---|---|---|---|---|---|---|
| 1.0×4×100 | AY-1004M | AR-1004M | AW-1004M | AB-1004M | AP-1004M | AO-1004M | AL-1004M | AD-1004M | AV-1004M |

**Rod type**

| Size (mm) Diameter x Length | Red #1200 | White #1000 | Blue #800 | Black #600 | Orange #400 | Light brown #300 | Gray #220 | Maximum rotation speed |
|---|---|---|---|---|---|---|---|---|
| ϕ3×50 | PR-30S | PW-30S | PB-30S | PP-30S | PO-30S | PL-30S | PM-30S | 30,000min-1 |

### XEBEC Ceramic Stone™ Pencil

| Product code | Equivalent grit | Color | TxWxL (mm) | Quantity/pack | Corresponding holder ( Please use it with a corresponding holder) |
|---|---|---|---|---|---|
| 3PACK-AR-0505S | #1200 | Red | 0.5×0.5×50 | 3 | PCL-5 |
| 3PACK-AR-0909S | | | 0.9×0.9×50 | 3 | PCL-9 |
| 3PACK-AB-0505S | #800 | Blue | 0.5×0.5×50 | 3 | PCL-5 |
| 3PACK-AB-0909S | | | 0.9×0.9×50 | 3 | PCL-9 |

| Product code | Size of Pencil tip | Corresponding XEBEC Ceramic StoneTM Pencil | |
|---|---|---|---|
| PCL-5 | ϕ0.7mm (0.5mm square) | AR-0505S | AB-0505S |
| PCL-9 | ϕ1.3mm (0.9mm square) | AR-0909S | AB-0909S |

### XEBEC Ceramic Stone™ Soft

| Product code | Equivalent grit | Size (mm) | |
|---|---|---|---|
| BS-2006M | #1200 | TxWxL (mm) | 2×6×100 |
| PBS-30M | #1200 | Diameter x Length | ϕ3×100 |

# Precautions for use

※When using vibrating tools or rotating tools, please read the warnings and user instructions that accompany the tool, and then please use the tool at or below its maximum rotational speed.

**XEBEC Brush™ Crosshole**

※Use a tool that corresponds to the hole diameter. Failure to do so could lead to bending, deformation, or breaking of the bristles or shaft, and is dangerous.

※Be sure to begin rotation only after you have inserted the tool bristles into the cylinder to be processed. Failure to do so could damage or splay the bristles.

※Use with an electronic grinding tool that can control rotation speed.

The rotational speed cannot be adjusted on air rotary tools, so tools damage may result.

**XEBEC Stone™ Flexible Shaft**

※Use a cutting load of 5N or less (i.e.,500gf, with a bending displacement of 2mm or less) when deburring or polishing workpiece.

Usage with an excessive cutting load may cause a dangerous broken or damaged shaft.

Operator Safety Measures

**[For Protective Equipment]**

Always wear protective goggles, gloves and masks when operating the tool.

Wear long sleeves, tight cuff, and clothing to minimize skin exposure.

**[Beware of Grinding Powder]**

Grinding powder and burrs may scatter within an area around the work as the brush revolves; please stay clear of this area.

**[Caution to Your Surroundings]**

The area around your work is hazardous in case flying pieces of fiber rods from the tools and grinding powder may scatter, enclose your working area to prevent other people entering, or have the people surrounding your work area protective equipment as well.

**⚠ WARNING** Follow the precautions for use and safety measures for operators above without fail. If you fail to observe them, there are following risks.
A tool or a part of a tool may crack, drop off, distort or break. Broken pieces of a tool or grinding dust may stick into your skin, or at worst stick into yours eyes, causing blindness.
Dust generated by machining process may bring up skin irritancy or allergy.

**Please visit our homepage for details. http://www.xebec-tech.com**

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Your Order

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# XEBEC

## Ceramic Fiber Tools for Handwork

Quick deburring solutions with XEBEC innovative ceramic fiber tools

- XEBEC Brush™ End type
- XEBEC Brush™ Crosshole
- XEBEC Stone™ Flexible Shaft
- XEBEC Stone™ Mounted Point
- XEBEC Ceramic Stone™ Meister Finish


XEBEC TECHNOLOGY CO.,LTD.

# XEBEC *Tools,*

***with our unique Ceramic Fiber technology, promise outstanding performance in your handwork,with safe, accurate and high quality finishing!***


## XEBEC Brush™
### Ceramic Fiber Brush

**XEBEC Brush™ End type**

Optimal for reducing waviness on surfaces and for deburring and polishing of flat and curved surfaces


Curved surface drift removal


Toolmark removal

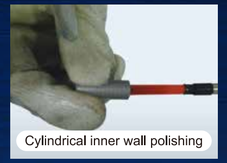
Use by contacting the tapered tip of the brush to the surface of a workpiece.

TOOL

Recommended rotation speed **7000min⁻¹**

**XEBEC Brush™ Crosshole**

No need for point processing, making it ideal for deburring of inner diameter cross-holes and recessed parts.


Cylindrical inner wall polishing


bearing surface deburring

Rotate the brush inside workpiece and move to use near the burr area.

TOOL

Recommended rotation speed **3000～5000min⁻¹**

## XEBEC Stone™
### Ceramic Fiber Points

**XEBEC Stone™ Flexible Shaft**

Flexible shaft allows soft contact with a workpiece.


Edge deburring


Round surface polishing

Use the tool by moving it lightly (bend displacement of around 0.5mm) and placing it into contract

TOOL

Recommended rotation speed **5000～8000min⁻¹**

**XEBEC Stone™ Mounted Point**

It can be used with air tools because it can be used with high rotational speed.


Deburring of edge areas


Aluminum die cast PL deburring

Use by contacting the tapered brush tip to the surface/bearing surface of a workpiece.

TOOL

Recommended rotation speed **15000min⁻¹**

## XEBEC Ceramic Stone™
### Ceramic Fiber Stones

**XEBEC Ceramic Stone™ Meister Finish**

It is a an innovative ceramic stone that does not break, does not crack, and does not chip (maximum thinness 0.5mm angle ～). Can be formed to fit the shape of the workpiece.


Slit part deburring


Blind hole bearing surface deburring


Blending scratches


Square hole edge deburring

Form the ceramic stone tip to fit the narrow and thin place.

HAND TOOL

Recommended rotation speed **7000min⁻¹**

## XEBEC Tool Custom Mobile Micromotor System M2P33ST

**■Jog dial & Digital display**
Digital notation appropriate to an XEBEC tool suitable to use at low rotation

**■Portable & Rechargeable**
Work places are not chosen for their ease of carrying.

**■Ultra-small, lightweight handpiece**
Lightens the burden of long hours of work.

| Part number | M2P33ST | Standard components | Handpiece (with stand), controller, ON / OFF foot switch, power cable for use during charging | Corresponding shank diameter | φ3mm |
|---|---|---|---|---|---|


## Tips can be easily formed for your own workpiece.

**Tip Shaping**

- You can easily form it with an electrodeposited diamond file or grinding wheel, etc., to match your application.
- To precisely narrow the tip of a rod type, chuck it to the rotating tool and rotate to form.

**Cutting & Dressing**

- Using an electrodeposited diamond file, notches can be made from both sides to cut a stick type.