## **Secret of Performance**

## **Unparalleled** "XEBEC Ceramic Fiber Tools"

There are secrets to the unmatched material.

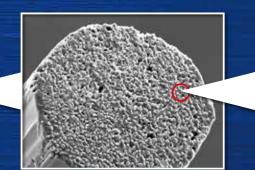
Each brush bristles, stone heads, and ceramic stones are made by binding 1,000 ceramic fibers, each a few dozen microns in diameter.

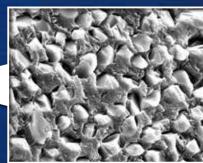
The tips of each of these micro fibers perform as continuous cutting edges

and these solid ceramic fibers promise stable and consistent grinding performance.

### [brush bristle]







## **Amazing Aspects**



## Fine Edge Quality

- > Fine edges, no scratches or no damage to periphery.
- Assures fine finishing by hand work.



## 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.



## Easy to change the shape

- ldeal for point processing because the tool tip can be formed to fit the workpiece.
- Narrow crevices and corners can be processed.



### >>> Product lineup

XEBEC Brush™ End ty	(EBEC Brush™ End type								
Product code	Ceramic fiber rod (color)	Brush diameter	Ceramic fiber rod length	Shank diameter	Maximum rotation speed				
A11-EB06M	Red	φ 5mm	20mm	φ3mm	12,000min <sup>-1</sup>				
A21-FB06M	White	φ.5mm	20mm	ф.3mm	12,000111111				

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-A 12-1.5M	φ3.5~5mm	120mm	φ 1.5mm	50mm	φ 2.5mm	φ 3mm	20,000min <sup>-1</sup>	
CH-A12-3M	φ 5~8mm	12011111	φ 3mm	50mm	φ 4mm	φ 3mm	12,000min <sup>-1</sup>	
CH-A33-3M	7 Ψ 5~οππ	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	nead size	пеао snape	Maximum rotation speed			
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	15,000111111			
CH-PB-4B	CH-PO-4B	CH-PM-4B	φ 4mm	Ball	13,000min-1			
CH-PB-4R	CH-PO-4R	CH-PM-4R	$\phi$ 4×4mm	Cylinder	15,000111111			
CH-PB-5B	CH-PO-5B	CH-PM-5B	φ5mm	Ball	12,000min <sup>-1</sup>			
CH-PB-5R	CH-PO-5R	CH-PM-5R	φ5×5mm	Cylinder	12,000111111			
-	-	CH-PM-5R-C01	φ5×10mm	Cylinder	8,000min <sup>-1</sup>			
CH-PB-6B	CH-PO-6B	CH-PM-6B	φ6mm	Ball	10,000min <sup>-1</sup>			
_	_	CH-PM-10B	φ 10mm	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	φ 3mm	20mm	#220	φ3mm×20mm	60,000min <sup>-1</sup>			
AX-PM-6T	φ6mm	20mm	#220	φ3mm×20mm	60,000min <sup>-1</sup>			

XEBEC Cerc	ımic Stone™ <i>l</i>	Meister Finish								
Stick type										
Size (mm) TxWxL	Yellow #1500	Red #1200	White #1000	Blue #80			Orange #400	Light brow #300	n Dark brown #220	Violet #120
1.0×4×100	AY-1004M	AR-1004M	AW-1004M	AB-100	04M AP-10	04M	AO-1004	1M AL-1004N	1 AD-1004M	AV-1004M
Rod type										
_ Size (mm)	Red	White	Blue		Black		range	Light brown	Gray	Maximum rotation speed

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	] #1200		0.9×0.9×50	3	PCL-9			
3PACK-AB-0505S	#800	Blue	0.5×0.5×50	3	PCL-5			
3PACK-AB-0909S	7 #800		0.9×0.9×50	3	PCL-9			
Product code	Size of Pencil tip		Corresp	onding XEBEC C	eramic StoneTM Pencil			
PCL-5	φ0.7mm(0.5mm square)		AR-0505S		AB-0505S			

Product code	Size of Pencil ti	Correspon	ding XEBEC C	Ceramic StoneTM Pencil	
PCL-5	φ0.7mm (0.5mm sqι	uare)	AR-0505S		AB-0505S
PCL-9	φ1.3mm (0.9mm squ	uare)		AB-0909S	
XEBEC Ceramic Stone™ So		Mobile Micromotor System			
Product code	Equivalent grit Size (mm)				Product code
BS-2006M	#1200	TxWxL (mm) 2×6×100		M2P33STX	
PBS-30M	#1200	Diameter x Length	er x Length $\phi 3 \times 100$		IVIZE 333 I A

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.

### >> 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.

\*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.

Please visit our homepage for details.

\*Don't use with pneumatic tools

### Operator Safety Measures [For Protective Equipment]

- ways wear protective googles, gloves and masks when operating the tool.
- In addition, wear long sleeves and have the cuffs/bottom of the jacket properly closed to minimize skin [Beware of Grinding Powder]

- 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 wear protective equipment as well.

  \*\*Our products do not contain refractory ceramic fibers.

### http://www.xebec-tech.com



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Your Order



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Made in Japan

# XEBEC

## **Ceramic Fiber Tools** for Handwork

Quick deburring solutions with XEBEC innovative ceramic fiber tools

- >> XEBEC Brush™ End type
- >> XEBEC Brush™ Crosshole
- >> XEBEC Stone<sup>TM</sup> Flexible Shaft
- >> XEBEC Stone™ Mounted Point
- >> XEBEC Ceramic Stone<sup>™</sup> Meister Finish





# XEBEC Tools for handwork

Our unique Ceramic Fiber technology promises outstanding performance 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





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



### XEBEC Brush™ Crosshole

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





workpiece and move to use near the burr area.



Flexible shaft allows soft contact with a workpiece.





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

**XEBEC Stone™ Ceramic Fiber Points** 



### (EBEC Stone™ Mounted Point

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





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

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



XEBEC Ceramic Stone™ Meister Finis

The innovative ceramic stones do not break, crack, or chip. Can be formed to fit the shape of the workpiece.









Form the ceramic stone tip to fit the narrow and thin

Recommended rotation speed 7000min



## Easy to form tips to fit a 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

• Make notches from both sides using an electrodeposited diamond file and cut off a tip.





**Designed for XEBEC products** 

## Mobile Micromotor System/M2P33STX

- ■Jog dial & Digital display
- Portable & Rechargeable
- Ultra-small & lightweight handpiece



 Part number
 M2P33STX
 Standard components
 Handpiece (with stand), controller, ON / OFF foot switch, power cable for use during charging
 Corresponding shank diameter
 φ3mm