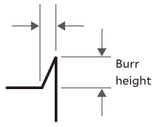
XEBEC Brush™ Wheel Type

Patented

Ideal for deburring and polishing inner diameters, side walls, and thread outside diameters

Applicable burr size
Burr root thickness of 0.1 mm or less (burrs of this size can easily be removed with fingernails)

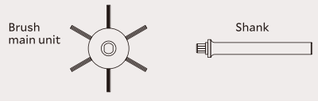
Burr root thickness



Video (YouTube)

Tool composition

Brush and Shank are sold separately.
Assemble Brush and Shank before use.



Applicable equipment

This tool can be mounted on equipment shown below:

Brush main unit

Brush (Color)	Product code	Brush diameter (mm)	Number of bundles	Matching shank	Fig
A11 (Red)	W-A11-50	φ 50	6	W-SH-M/L	9
	W-A11-75	φ 75	6		

Shank

Product code	Shank diameter Ds (mm)	Shank length ℓs (mm)	Fig
W-SH-M	φ 8	70	10
W-SH-L	φ 12	150	10

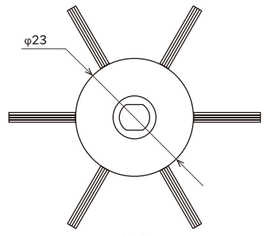


Fig9

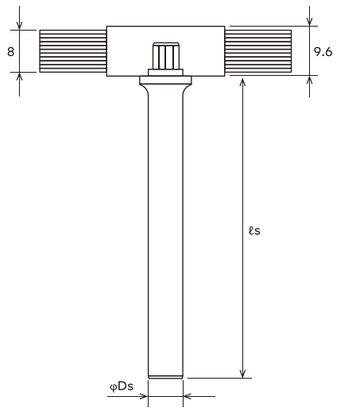


Fig10

Applications

Deburring automation
Thread Outside Diameter

Before

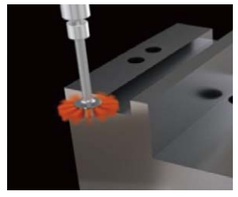
Deburring was done by filing but failed to remove all burrs. Quality was not stabilized.

After

All burrs are removed with the quality stabilized.

Material : SCM
Previous process : Turning
Tool: W-A11-50

Deburring automation
Side Wall



Before

Had a difficulty removing burrs formed on the side edge. Burrs were removed by manual work.

After

Burrs are removed in the machine. Manual work is eliminated.

Material : S50C
Previous process : End milling
Tool : W-A11-50

How to use

As shown in Figure 1, the best approach to remove burrs formed on Surface A is to place a center of a Brush at the center angle to the edge.
In such a case, rotate the Brush in both clockwise and counter-clockwise directions.

If it is difficult to place the Brush as shown in Figure 1, it is also possible to place the Brush as shown in Figure 2.
Also in such a case, rotate the Brush in both clockwise and counter-clockwise directions.

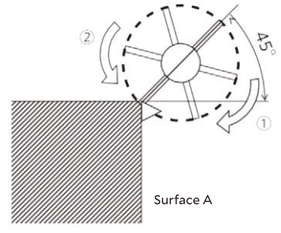


Figure 1

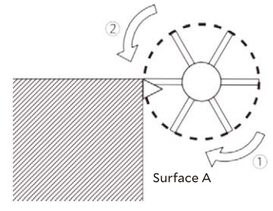


Figure 2

Machining Parameters

Standard Machining Parameters

Product code	Cutting speed (m/min)	Rotational speed (min^{-1})	Feed per bundle (mm/bundle)	Depth of cut (mm)	Feed (mm/min)
W-A11-50	250	1600	0.5	0.2	4800
W-A11-75	250	1000	0.5	0.2	3000

Maximums for machining conditions

Product code	Cutting speed (m/min)	Rotational speed (min^{-1})	Depth of cut (mm)	Feed (mm/min)
W-A11-50, W-A11-75	150 - 350	≦1.5	≦0.5	3000

*As bristles are worn out, bristle length becomes shorter and increases stiffness, causing bristles to be broken.
If bristles breakage occurs, decrease the depth of cut.

Instruction manual