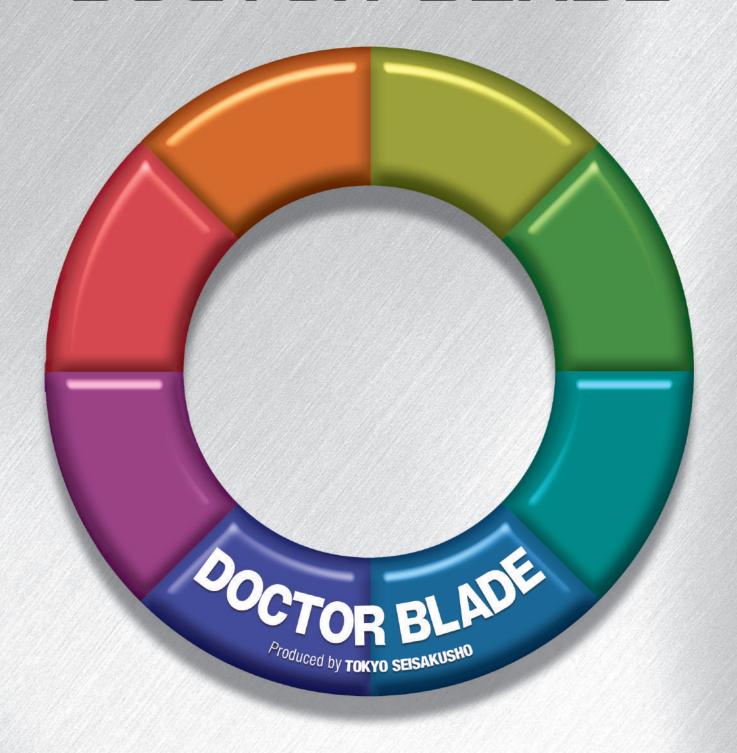
# TS DOCTOR BLADE



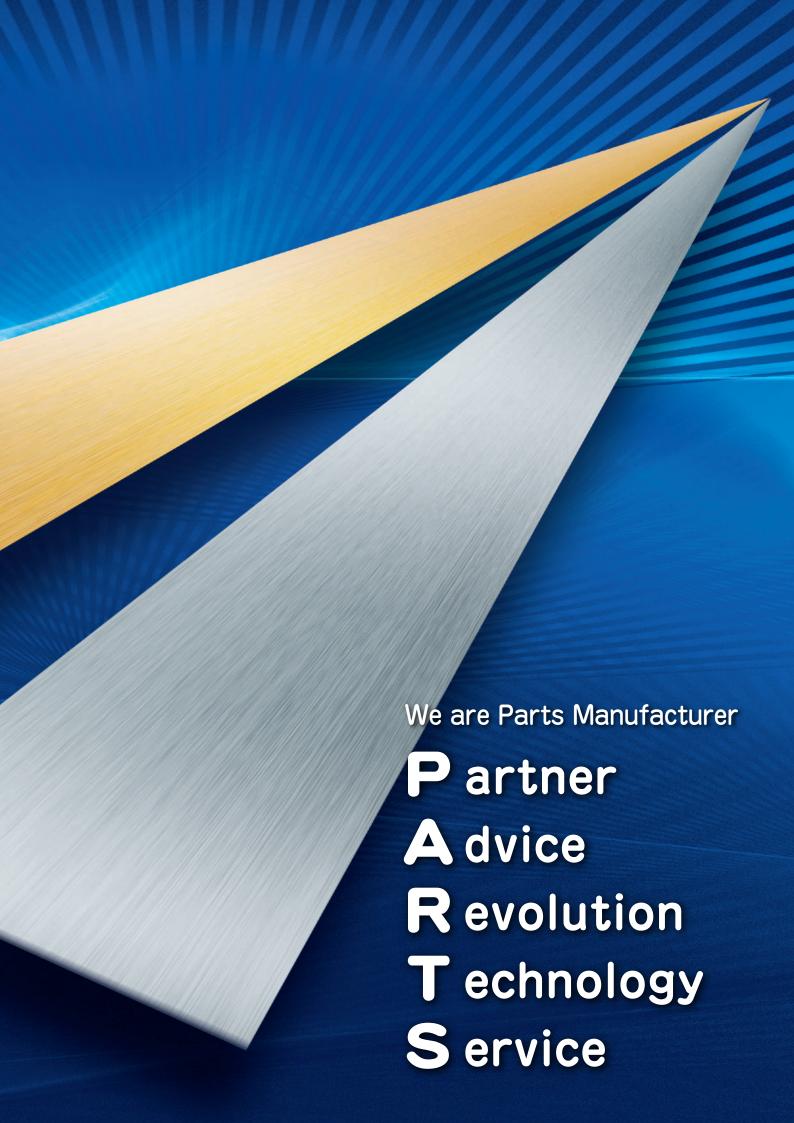
TOKYO SEISAKUSHO CO., LTD.

# TS Doctor Blade

### 老舖

Since 1977, Tokyo Seisakusho has promoted many researches and developments as well as production as pioneers of DOCTOR BLADES in Japan.



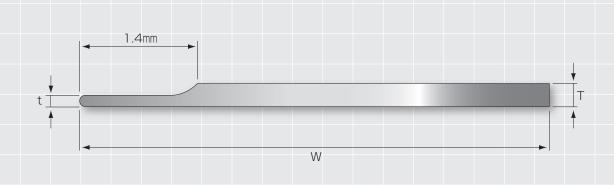


# **TS** Doctor Blade (Plating Type)

Material Thickness	0.15mm · 0.2mm			
Width	40mm · 50mm · 60mm			
Edge Thickness	$50\mu$ m · $60\mu$ m · $70\mu$ m · $80\mu$ m · $90\mu$ m			
Shape	Lamella (single) · Lamella (double) · Bevel			
Plating Thickness	10μm · 5μm · 15μm			
Surface Treatment Hardness	SiC(Excellent Durable Products) Hardness Hv900 Hv700 PTFE(Contains Fluorine) Hardness Hv900			
	Ni-P(High Durable Products) Hardness Hv900			
Lamella (single)	4mm →			
t T	W			
Lamella (double)	4mm			
Bevel	) 2.2°			
	W			

# TS Doctor Blade (Steel Type)

Material Thickness	0.15mm · 0.2mm
Width	40mm · 50mm · 60mm
Edge Thickness	$40\mu$ m $\cdot$ $50\mu$ m $\cdot$ $60\mu$ m $\cdot$ $70\mu$ m $\cdot$ $85\mu$ m $\cdot$ $100\mu$ m $\cdot$ $150\mu$ m
Shape	Lamella (single) · Lamella (double) · Bevel
Hardness	Hv 620



#### TS Doctor Blade (QROWT)

Different from steel, the material itself has hardness so durability is excellent. It is widely used for white and pearl type ink.

Material Thicknes	Hardness	
Q160—70	$0.15$ mm $ imes 70 \mu$ m $ imes 60$ mm	Hv 650
Q250—70	$0.2$ mm $ imes 70$ $\mu$ m $ imes 50$ mm	Hv 750
Q250—100	$0.2$ mm $ imes$ $100 \mu$ m $ imes$ $50$ mm	(Edge)

### TS Doctor Blade (sus)

Provides more anti-rust protection than steel type.

Material Thickness x Edge Thickness x Width		Hardness
S150—70	$0.15$ mm $ imes 70 \mu$ m $ imes 50$ mm	
S160—70	$0.15$ mm $ imes 70 \mu$ m $ imes 60$ mm	Hv 565
S250—70	$0.2$ mm $ imes 70$ $\mu$ m $ imes 50$ mm	

★We have plastic material type doctor blades also.

## **TS** Doctor Blade Process Operation

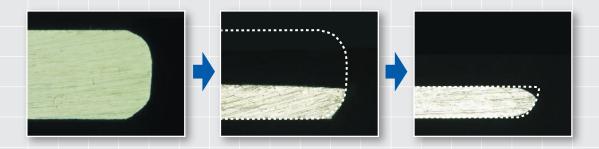
#### Material

To manufacture high-accurate parts, we import high quality materials from Sweden and Germany.



#### Processing

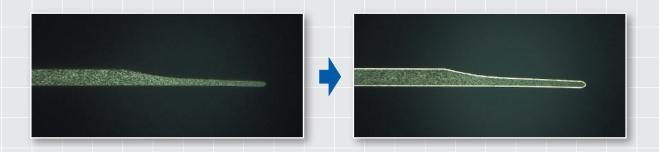
We manufacture with our original endless grinding machine. We also use our original finishing machine to manufacture smooth edges.



#### Plating

We do all the series of production from steel grinding to finish plating by ourselves.

During electroless plating process, we add and disperse suitable amount of small particles (SiC etc.) and fix it together with the coating film.



# **TS** Doctor Blade Process Operation



We inspect all the finished parts.
We promise you delivering stable parts.





#### Shipping

After inspecting, we put them in a special box for TS Doctor Blades and ship out.

We collect these boxes back and reuse after cleaning.

★We can cut and deliver the length you need.



#### Measuring equipment



Microscope



Laser microscope for measuring shapes



Microscope(cross-sectional shape)

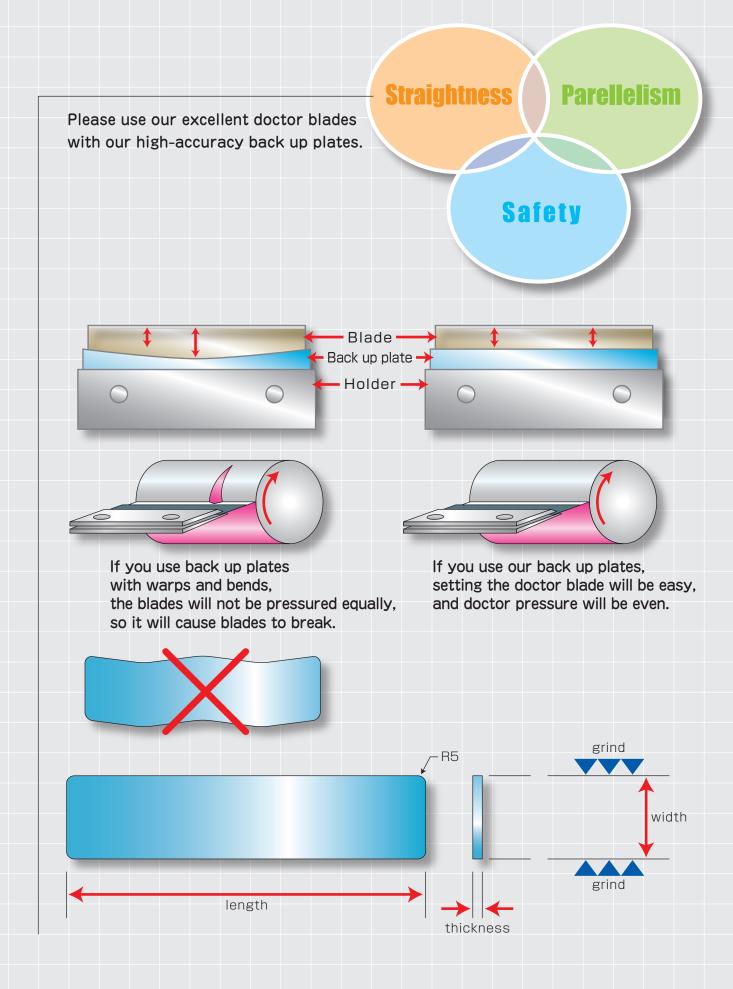


Tester for measuring micro hardness



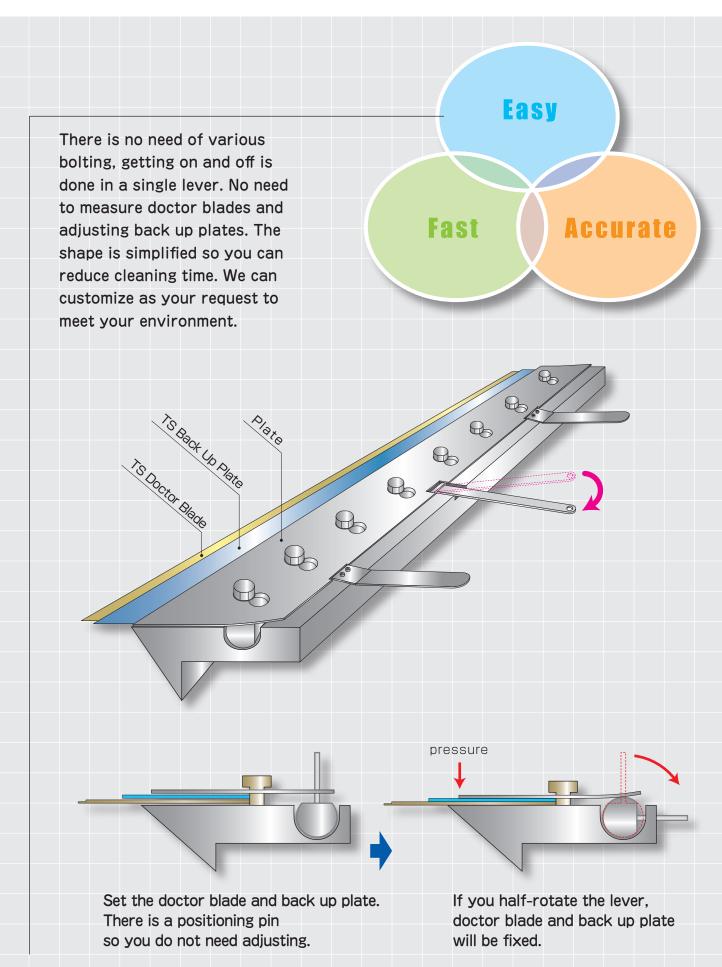
We control the parts thoroughly with lot numbers to keep quality and process control.

# TS Back Up Plate



## **TS** One Touch Doctor Holder





# **TS** Doctor Cutman



### **Secondary Materials for Printing**

#### **Blade Protection Cover**

- Protects the cover firmly and does not damage the blades.
- Improves safety when installing to the prepared doctor holders.
- We can easily cut it to fit with your using blades.
- Easy desorption

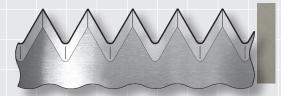


①Put the protection cover on the blade.

②Cover will be fixed when you put down the lock claw.

### Knife

We can respond to customer's needs Maximum-length up to 2,000mm is available.



Round process (Bottom section)



Fine Pitches

## **Secondary Materials for Printing**

### **Non Fold Cutters**

S Cutter	$0.4$ mm $\times$ 9mm $\times$ 80mm
S Cutter Half	$0.4$ mm $\times$ 9mm $\times$ 40mm
L Cutter	0.5mm × 18mm × 100mm
L Cutter Half	0.5mm × 18mm × 50mm



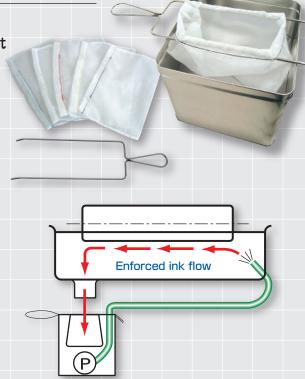
### Slitter Replacement Blades

Material	Size	
Steel	0.25mm × 18.7mm × 38mm	
Carbide Blade (thin type)	0.25mm × 20mm × 40mm	
Carbide Blade (thick type)	0.5mm × 15mm × 35mm	



Troubles of doctor blades are mainly caused by mixing foreign substances, so it is important to filter thoroughly the remaining inks forcibly.

#120 mesh/25.4mm	rough
#150 mesh / 25.4mm	<b>†</b>
#180 mesh / 25.4mm	
#200 mesh / 25.4mm	$\downarrow$
#250 mesh / 25.4mm	small



# **Convenient Doctor Holder Racks Other Exclusive Parts**



### **Convenient Doctor Holder Racks**

A rack to keep doctor holders, impression cylinder rolls, finisher rolls, etc.



#### Other Exclusive Parts

We can manufacture exclusive parts you need like ink pans and printing plate covers.

O.7:1.40

O.62.50

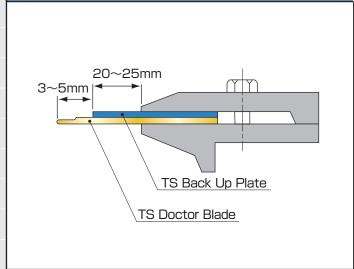
Ink Pan

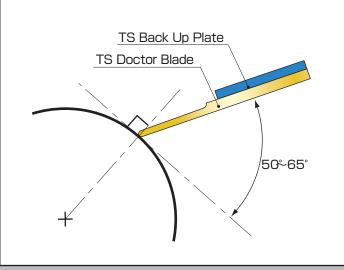
Cutter for Soft Packing Material

### Standard Set-Up for TS Doctor Blade

#### Standard Size of Blade Edge Margin Part

#### **Standard Installation Angle**





If the margin part of the edge is too short, it will be easily damaged and moreover lifetime will be short. Also, if it is too long, it will cause fogging.



#### **Handling Precautions**

- ★Doctor Blade's most import part is the edge. Please be careful of handling and storage place.
- ★Precision of the Doctor Blade is very important also.
- ★Please use back up plates which both edges are grinded, without warps and bends.
- ◆Blade edge after use will become very sharp, so please be very careful when exchanging.



#### Please contact us

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H P



Main production equipment



Virtual reality contents