

Blank Processing – Table of Characteristics of Each Process (mm)

Process	Etching	Φ0.05 Wire	Φ0.2 Wire	Laser processing	Fine laser processing	Stampin (Inside radius corner more than R0.15)	Stamping(Inside radius corner less than R0.15)
Thickness	~0.5	~5.0	~40.0	0.1~3.0	0.03~(1.0)	0.03~3.0	0.03~1.0
Processing Range	180 × 280	100 × 150	200 × 300	1000 × 1000	500 × 500	180 × 280	90 × 140
Precision	Low (Approx. ±0.03 when t=0.3 or less Plate thickness ±10~15% when t=0.3 or more)	High (±0.01~)	High (±0.03~)	Low (Approx. ±0.05 when t=0.5 or less Plate thickness ±10~15% when t=0.5 or more)	Slightly low (±0.03)~	High (±0.01~)	High (±0.01~)
Inside Corner Radius	R of the plate thickness	R0.04~	R0.18~	R0.05~ (About 0.06)	R0.05~ (About 0.06)	R0.15~	More than R0.01 (Edging possible)
Minimum Slit Width	The plate thickness	0.15~0.3	0.4~	0.3~ (Depending on plate thickness)	0.1~ (Depending on plate thickness)	More than 0.2 up to t=0.1 3x plate thickness for more than t=0.1	More than 0.2 up to t=0.1 3x plate thickness for more than t=0.1
Point	<ul style="list-style-type: none"> • Low risk of discoloration • Shape limitations • Advantageous for curving 	<ul style="list-style-type: none"> • Possibility of discoloration or rust • Pilot hole needed • High precision 	<ul style="list-style-type: none"> • Possibility of discoloration or rust • Pilot hole needed • High precision 	<ul style="list-style-type: none"> • SUS and ferrous metals only (non ferrous cannot be used) 	<ul style="list-style-type: none"> • Non-ferrous such as phosphor bronze can be used • Plating materials can be used • Aluminum can be used (pure copper cannot be used) 	<ul style="list-style-type: none"> • Required angle R supported • Same cross-section as stamping 	<ul style="list-style-type: none"> • Required angle R supported • Same cross-section as stamping
Limitations	<ul style="list-style-type: none"> • Plating materials cannot be used • Joint for plating required • L/T required 	<ul style="list-style-type: none"> • Deoxidizing • Hump removal 	<ul style="list-style-type: none"> • Deoxidizing • Hump removal 	<ul style="list-style-type: none"> • Decoloration • Burrs 	<ul style="list-style-type: none"> • Decoloration • Burrs 	<ul style="list-style-type: none"> • Plating materials can be used • Burrs is within 0.03 when t=0.3 or less • 10% of the plate thickness when t=0.3 or more • Undercut occurs 	<ul style="list-style-type: none"> • Plating materials can be used • Burrs is within 0.03 when t=0.3 or less • 10% of the plate thickness when t=0.3 or more • Undercut occurs
Prototype Quantity	Small to medium quantity	Small quantity	Small to medium quantity	Small to medium quantity	Small to medium quantity	From medium quantity	From medium quantity
Cost	<ul style="list-style-type: none"> • Plate costs required 	<ul style="list-style-type: none"> • No initial costs • Planning and machining time required 	<ul style="list-style-type: none"> • No initial costs • Planning and machining time required 	<ul style="list-style-type: none"> • No initial costs • Short delivery times supported 	<ul style="list-style-type: none"> • No initial costs • Short delivery times supported 	<ul style="list-style-type: none"> • Initial costs required • Prototype die sets cost is 1/5 of the mass production die sets cost 	<ul style="list-style-type: none"> • Initial costs required • Prototype die sets cost is 1/4 of the mass production die sets cost