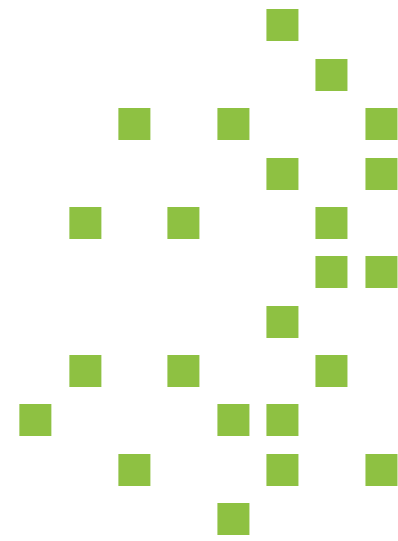
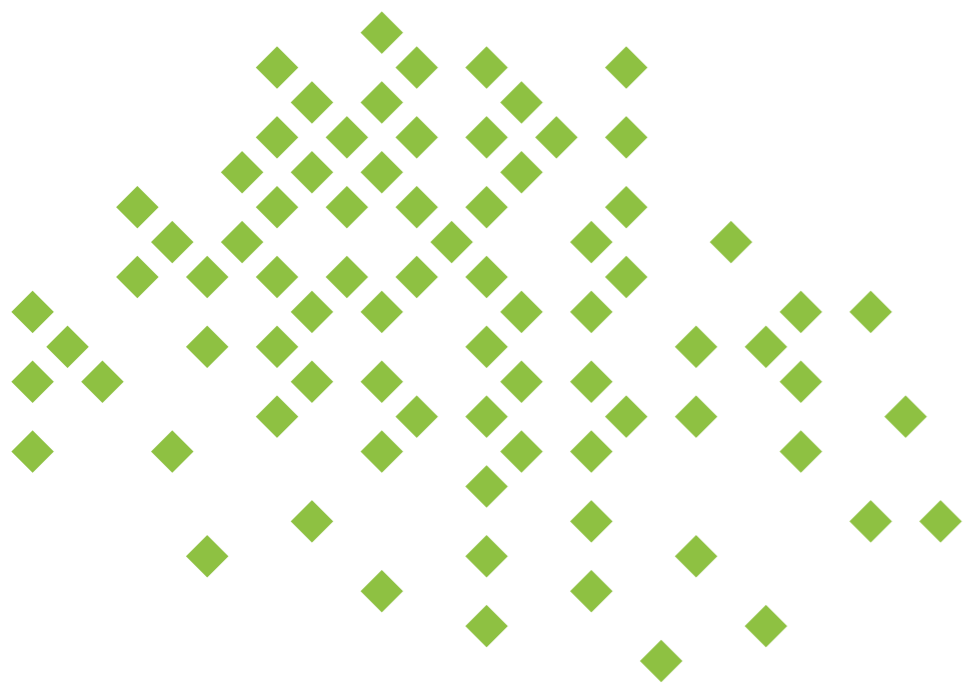
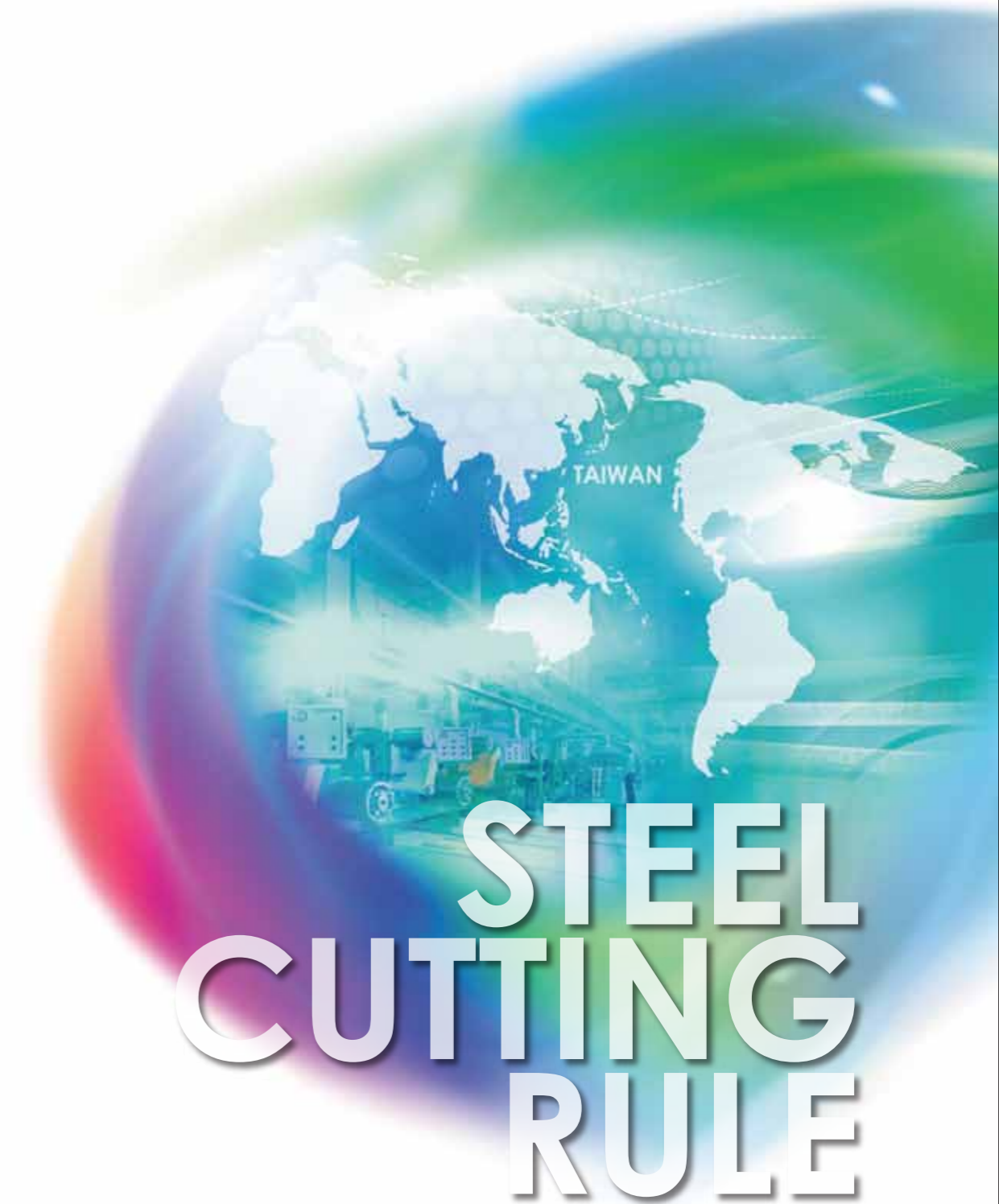
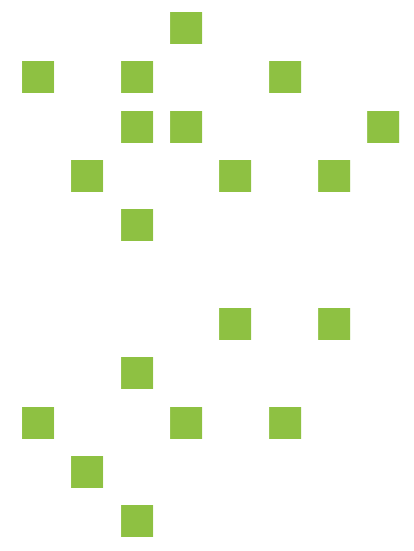




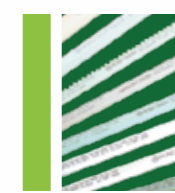
HUNG SHUH ENTERPRISES CO., LTD.



HUNG  SHUH



STEEL CUTTING RULE



We serve more than 50 well-known customers / distributors worldwide. **Hung-Shuh product is your best choice.**

HUNG  SHUH 

Distributor :



HUNG SHUH ENTERPRISES CO., LTD.
No.46, Sec. 1, Minsheng N. Rd., Guishan Township,
Taoyuan County 33391, Taiwan (R.O.C.)
TEL : +886-3-326-2277
FAX : +886-3-326-2292
www.hung-shuh.com.tw

Established in 1970

HUNG SHUH

HS Hung-Shuh Enterprises Co., Ltd. was established in 1970 in Taiwan. To constantly provide best service to our customers is the goal we have been striving toward, therefore we keep putting resources into improving product quality. We cooperate with German, Austrian and Japanese companies who are well-known in this industry to get the most advanced systems and techniques.

Those efforts help Hung-Shuh to gain the trust from more than 50 global base customers. To go a step further, we've enlarged the cooperation with industry, government, and academia too, injected a lot of resources, in order to invent new products and technologies.

Facing the ever competitive markets in the future, Hung-Shuh is looking forward to your instructions and support. Please kindly honor us by giving Hung-Shuh the opportunities to serve you and we believe with your support we can together create a win-win business.



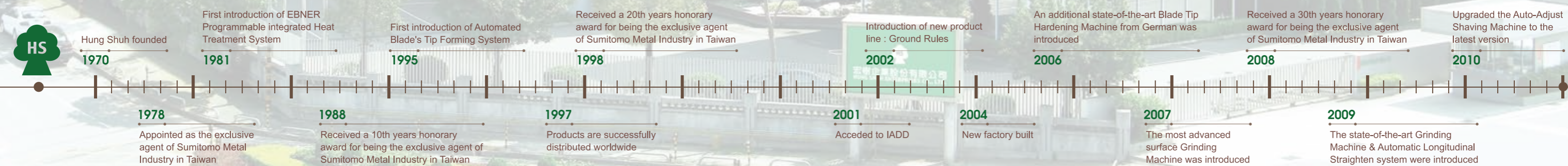
QUALITY

PROFESSION

SERVICE

EFFICIENCY

Milestones



About HUNG-SHUH

Hung-Shuh Enterprise Co., Ltd was established in 1970 in Taiwan. We concentrate in producing best steel cutting rules and developing new techniques. Hung-Shuh owns two well-known cutting rule brands and has more than 50 global base customers now.

With the 40 years solid experiences, we have built 4 strengths :

- ♣ Equipped the most advance systems/machines provided from Germany, Austria, Japan
- ♣ "All in-house producing" + "total customization"
- ♣ Most experienced R&D center
- ♣ Worldwide sales channels and customer service centers



EBNER Heat Treatment System

EBNER the top one heat treatment platform provider. With the two most advanced systems provided by ENBER, we produce rules with up to 0.08mm decarburized area which makes rules with best bendability. Also with the two systems, we can produce various hardness rules to meet different market needs.



German Auto-Adjust Shaving Machine

This platform was just upgraded in 2010, The new Optical Measurement module and Auto-Adjust tech make rules with perfect edge shape and longer lifetime.



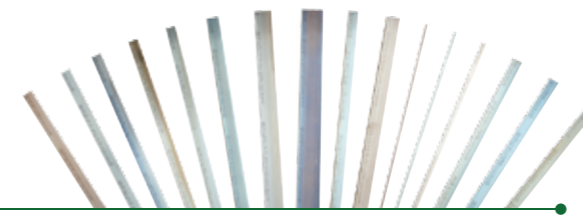
German Free-Angle Grinding Machine

The recently purchased machine was made in Germany. Using the newest "Free Angle" controlling technology can make blades extremely sharp and also reduce the friction coefficient to near-zero.



Japanese Tip Hardening Machine

This full-computer-control HF (High Frequency) hardening machine can not only precisely harden blade tips but also remain the best bendability.



The Most Hot Sell

Hung-Shuh products are 100% in-house produced in Taiwan. With all the practical experiences and the advanced machines / systems, we provide our customers the best rules according to their local demands.

Below are the most popular rules types :



1. Hung-Shuh / AITCHES General Cutting Rules



1-1 Hung-Shuh D4, D3 / Aitches Master-D, Advance-D

Spec.	Name	D4, Master-D	D3, Advance-D
Thickness		2PT-0.71mm	
		3PT-1.06mm	
		4PT-1.42mm	
Height		23.6, 23.8mm	
Tip Angle		52/7, 42/7	
Bevel Shape		LCB-Long Center Bevel	
Hardness - Body		HS52	HS48
	Hardness - Tip	HS76 (HV630)	

- These are the most popular models
- Are suitable for cutting corrugated paper, thin asbestos board, carbon fabric board, plastic board, business card, etc.

1-2 Hung-Shuh A4 / Aitches Master-A

- The most basic model with most reasonable price
- Specification : CB-Center Bevel, without hardened edge
- Is suitable for cutting business card, cardboard, etc.

1-3 Hung-Shuh / Aitches High Rule

- High rules (height : 30, 40, 50mm)
- Is suitable for cutting thick foam sheet, copper paper, plastic, leather, etc.



2. Hung-Shuh / AITCHES Creasing Rules

- We provide creasing rules with 3 different edge shapes: DR-Double Round, SR-Single Round and SF-Special Facet
- The specification T 0.71mm x H 23.3mm is the most common size



3. Hung-Shuh / AITCHES Label Rules

- The most increasing model
- The ground bevel is very sharp, it's best for making complicated / fine cutting dies, especially for cutting sticker and thin plastic board
- The most popular specification :

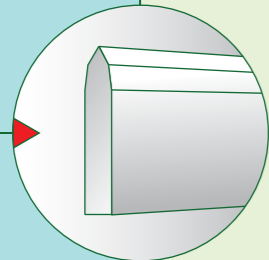
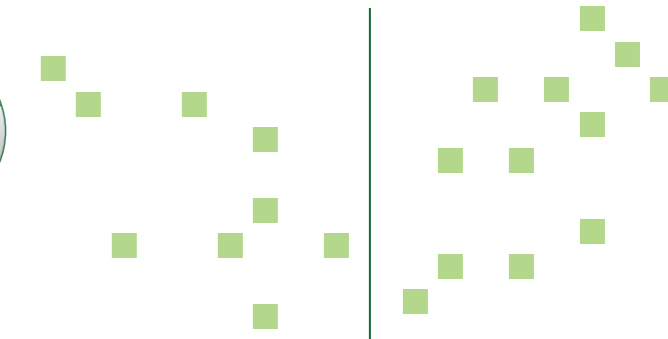
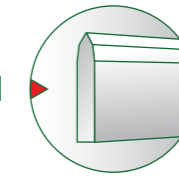
Thickness	0.45mm
Height	8mm
Tip Angle	42
Hardness - Body	HS52
Hardness - Tip	HS72 (HV580)

We provide 4 major groups of rules :



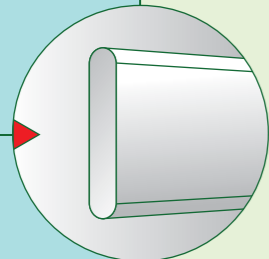
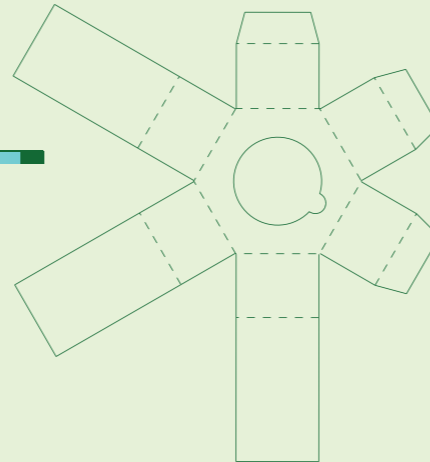
1. General Cutting Rules

There are 6 sub-types in this group : Type A, B, C, D, S and H.



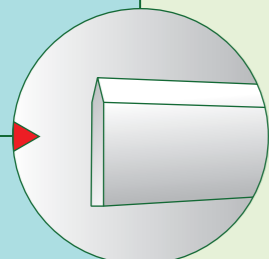
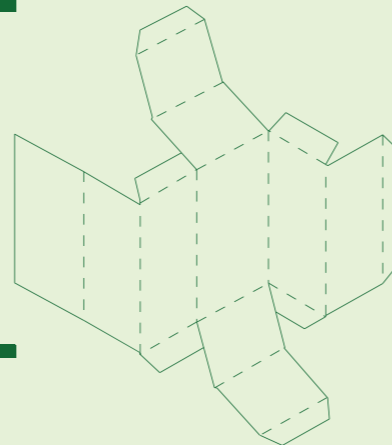
1. General Cutting Rules

It's the model with the biggest demand. By combining different thickness, height, hardness, bevel angel / shape...can create various types in order to meet different market needs.



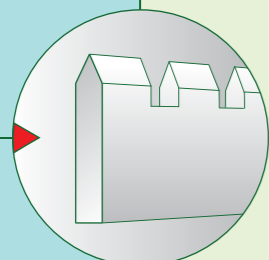
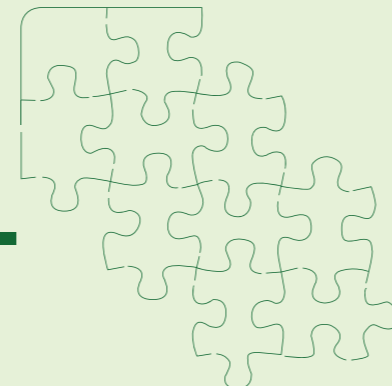
2. Creasing Rules

Double Round, Single Round and Special Facet three different types, work with general cutting rules can make final products with best folding line.



3. Label Rules

The state of art Label Rule is your best choice in cutting special materials, such like thin plastic board, sticker...



4. Perforating Rules

This special rule is for creating discontinuous cuts which can be a folding line or a tearing line.

Type A & B without hardened tip

These are the basic rule types with most reasonable prices.

	Type A	Type B
Bevel Shape	CB-Center Bevel	LCB-Long Center Bevel
Thickness	0.71mm (2PT), 1.06mm (3PT), 1.42mm (4PT)	
Height	22.8mm – 30.0mm	
Bevel Angel	∠42, ∠52	∠42/7, ∠52/7
Hardness-Body	HS48, HS52, HS55, HS60	
Hardness-Tip		
Application	To cut business card, cardboard, etc.	

Type C & D with hardened tip

To harden rule tip by High Frequency Hardening System makes rule last longer lifetime.

	Type C	Type D
Bevel Shape	CB-Center Bevel	LCB-Long Center Bevel
Thickness	0.71mm (2PT), 1.06mm (3PT), 1.42mm (4PT)	
Height	22.8mm – 30.0mm	
Bevel Angel	∠42, ∠52	∠42/7, ∠52/7
Hardness-Body	HS48, HS52, HS55	
Hardness-Tip	HS76 (HV630)	
Application	To cut business card, cardboard, thin corrugated paper	Comparing with Type C, Type D can cut thicker / harder materials, such like corrugated paper, thin asbestos board, carbon fabric board, plastic board...

Type S

The key feature of Type S is the peak of bevel is not in the middle. This special shape can make the cut more precise.

	Type S	
Bevel Shape	SB, Side Bevel	LSB, Long Side Bevel
Thickness	0.71mm (2PT), 1.06mm (3PT)	
Height	22.8mm – 50.0mm	
Bevel Angel	∠42, ∠52	∠52/11
Hardness-Body	HS48, HS52	
Hardness-Tip	HS76 (HV630)	
Application	To cut rubber and plastic	

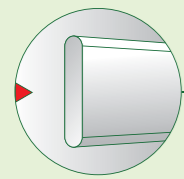
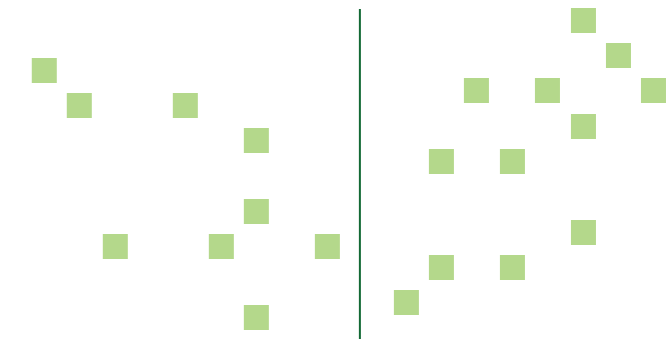
Type H

The height higher than 30mm belongs to this type.

	Type H	
Bevel Shape	CB, Center Bevel	LCB, Long Center Bevel
Thickness	0.71mm (2PT), 1.06mm (3PT)	
Height	30mm – 50mm	
Bevel Angel	∠42, ∠52	∠52/7
Hardness-Body	HS48, HS52	
Hardness-Tip	HS76 (HV630)	
Application	To cut thick foam sheet, copper paper, leather, plastic, etc.	

Special Remarks

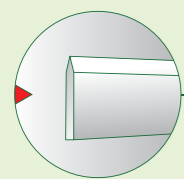
- For Type A, B, C and D, we provide both shaved and ground bevel
 - The ground bevel rules are especially sharp, also with the near-zero friction coefficient feature can reduces dust and angel hairs during cutting process
 - Ground edge rules are suitable for cutting plastic, sticker and any materials with mucous membrane
- For Type S and H, we only provide the rules with ground bevel



2. Creasing Rules

We provide three different edge shapes for creasing rules

Creasing Rules (Type E)			
Thickness	0.71mm / 1.06mm / 1.42mm		
Height	22.6mm ~ 24.35mm		
Edge Shape			
	DR, Double Round	SR, single Round	Special Facet
Hardness-Body	HS52, HS55		
Application	Double round is easily used and suitable for all applications	The flat edge makes the creasing rule more stable in cutting dies	With the smaller tip (0.35mm, 0.53mm), it is used for creating finer or sophisticated folding works



3. Label Rules

The ground bevel edge with very thin body is the best choice for making complicated cutting dies and to cut special thin materials

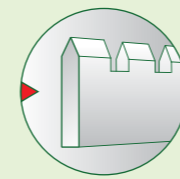


Label Rules (Type L)	
Thickness	0.45mm/0.53mm
Height	7mm ~ 12mm
Bevel Angel	∠42, ∠ 52
Hardness-Body	HS52, HS55
Hardness-Tip	Without hardened tip : same with body hardness With hardened tip : HS72 (HV580)
Application	To cut sticker, thin plastic, Polyester fiber label, etc. With hardened edge can cut thicker / harder materials and can make the rules longer lifetime

Hardness Conversion Table

HS	48	50	52	55	60	70	72	74	76	HS
HRC	34	37	39	41	44	53	54	55	57	HRC
HV	340	360	380	410	440	560	580	600	630	HV

P.S. We also describe hardness with : Advance : HS48 ; Master : HS52 ; Superior : HS55 ; Extreme : HS60



4. Perforating Rules

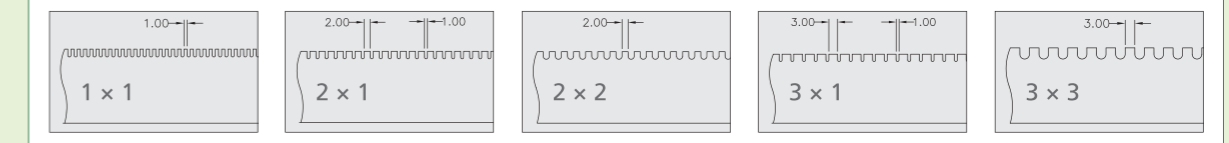
We provide various sizes of perforating rules to meet different needs



Perforating Rules	
Thickness	0.71mm
Height	23.60mm/23.80mm
Bevel Angel	∠42, ∠52
Hardness-Body	HS52
Hardness-Tip	Without hardened tip: same with body hardness With hardened tip: HS72 (HV630)
Tooth Sizes	1x1 2x1 2x2 3x1 3x3
Application	To make tearing line or folding line on card, corrugated paper, label, etc.

Unit : mm

Type	Tooth	Gap	Thickness	Depth	Height
1 x 1	1.0	1.0	0.71	2.5	23.6 / 23.8
2 x 1	2.0	1.0	0.71	2.5	23.6 / 23.8
2 x 2	2.0	2.0	0.71	2.5	23.6 / 23.8
3 x 1	3.0	1.0	0.71	2.5	23.6 / 23.8
3 x 3	3.0	3.0	0.71	2.5	23.6 / 23.8



Packaging

1. Pieces / Per-box ; Meters / Per-coil

1-1 General Cutting Rules			
Thickness	Height	Pieces / Per-Box	Meters / Per-Coil
0.45mm	1.27pt	150 Pcs	100M
0.53mm	1.5pt	130 Pcs	100M
0.71mm	2pt	100 Pcs	100M
1.06mm	3pt	70 Pcs	50M
1.42mm	4pt	50 Pcs	50M

1-2 High Rules			
Thickness	Height	Pieces / Per-Box	Meters / Per-Coil
0.71mm	2pt	70 Pcs	50M
1.06mm	3pt	50 Pcs	50M
1.42mm	4pt	35 Pcs	50M

1-3 Label Rules			
Thickness	Height	Pieces / Per-Box	Meters / Per-Coil
0.45mm	1.27pt	100 Pcs	100M

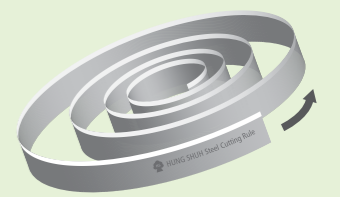
2. Coil diameter

Thickness	Length	inside diameter (ID)	Outside Diameter (OD)
0.71mm	2pt	100M	360mm
1.06mm	3pt	50M	360mm
			470mm
			450mm

3. Coil winding direction



CW : Clockwise



ACW : Anti-Clockwise
CCW : Counterclockwise

The Criteria for a good steel cutting rule :



With more than 40 years rule producing experiences, Hung-Shuh does know how to make outstanding steel cutting rules.

A qualified rule must have following features :

1. Only Use Best Raw Material

Best products only come from best raw materials. Hung-Shuh Co. insists to use the first level steel strips provided by the Sumitomo Metal Industries, Ltd from Japan to assure our customers receive only best products.

2. Stable Quality

Our devoted and experienced QC Center, equipped with the most advanced examine machines, follows the most demanding Germany Cutting Rule Manufacturing Standards to do quality monitoring. Only the best rules can be delivered to our customers.

3. Competitive Prices

By controlling the whole manufacturing process (from material importing to rules packing) and developing new techniques, Hung-Shuh Co. can continually lower down our costs, therefore we can always offer our customers the most competitive prices.

4. Full Customization Capability

Every market differs. Hung-Shuh Co. provides full customization services to meet customers' specific needs. Bevel shape / angel, hardness, sizes, all parameters can be customized.

5. Best Delivery

Hung-Shuh Co. has a professional warehouse, which is near 3,000 square meters, with rich stock of finished / semi-finished products to ensure our customers can get what they need at the very first moment.

Now we present you the best steel cutting rules :

- The hardened tip helps cutting dies last longer lifetime
- The clear decarbonized area makes rules have the best bendability
- Various hardnesses can meet different needs
- Rules can be fitted into dies easily because of the shaved edge and also the rules will be more stable

- We provide both shaved and ground bevel
- Bevel shape can be CB, LCB, SB or LSB

Center bevel (CB)

Side bevel (SB)

Long Center bevel (LCB)

Long side bevel (LSB)

- Bevel angel can also be customized

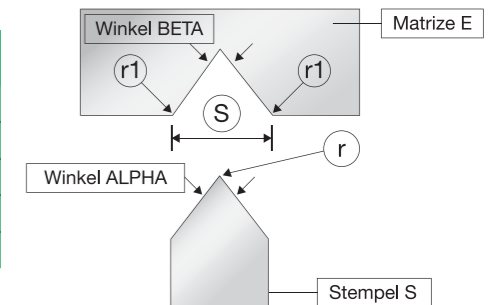
We follow the Germany Cutting Rule Manufacturing Standards :

1. Flexibility

Rule		Lower Die				Upper Die		
Thickness	Hardness	Beta	R1	S	No.	Alpha	R	No.
0.71	H2 / HF	50°	1	6	E1	40°	0.50	S1
0.71	H3	60°	1	6	E2	40°	0.50	S1
1.05	H2	60°	1	6	E2	40°	0.50	S1
1.05	H3	70°	1	10	E3	40°	0.75	S2
1.42	H2	70°	1	10	E3	40°	0.75	S2
1.42	H3	100°	1	10	E4	40°	0.75	S2

Above perimeter explanations :

Hardness Perimeter	Tip Hardening Process (with high frequency)	Hardness-Body	Hardness-Tip
H2 / HF	Yes	HRC34~38 / HV340~380	HRC51~56 / HV520~620
H3 / HF	Yes	HRC40~46 / HV400~460	HRC51~56 / HV520~620
H2	No	HRC34~38 / HV340~380	
H3	No	HRC40~46 / HV400~460	
H4	No	HRC49~53 / HV520~580	



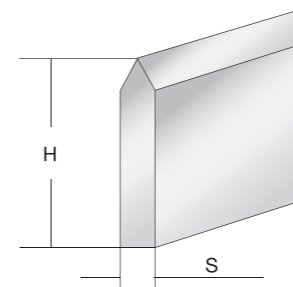
2. Thickness Tolerance

(Thickness=S, according to DIN 1544P)

Thickness	Tolerance
0.45mm / 1.27pt	+/- 0.015mm
0.53mm / 1.5pt	+/- 0.015mm
0.71mm / 2pt	+/- 0.015mm
1.06mm / 3pt	+/- 0.020mm
1.42mm / 4pt	+/- 0.025mm

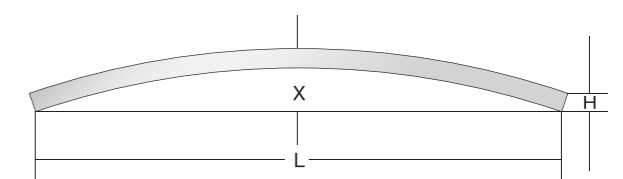
3. Height Tolerance (Height=H)

Height	Tolerance
Any height	+/- 0.02mm



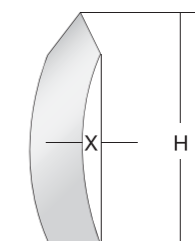
4. Concavity Tolerance

When the Length (L) = 1,000mm, the max. of the X is 0.5mm



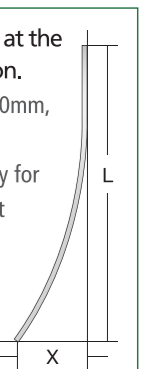
5. Flatness Tolerance

The max. of X = Height (H) x 0.001
Ex. A height 23.8mm rule, the max. flatness tolerance is 0.024mm (23.8mm x 0.001 = 0.024mm)



6. Planeness Tolerance

Measured a straight rules at the freely suspended condition. When the Length (L) = 1,000mm, the max. of the X is 10mm P.S. this measurement is only for one meter straight rules, not suitable for coils



7. Hardness Tolerance : HS +/-2