

Applications

	Japan	Thai														
		Ground					Shaved									
		ISDB	PL blade	R-type	G-type	WG-type	S	SP	WS	WSP	M	R	Plus	RF		
Advantage	Reduce angel hair (dust)		✓	✓	✓								✓	✓	✓	
	Increased die life time				✓			✓	✓	✓						
	Reduce cutting pressure			✓											✓	
Application	Card board		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Laminated card board		✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	
	Small lot card board							✓	✓	✓	✓					
	Cigarette							✓	✓	✓	✓	✓	✓	✓	✓	
	Laminated cigarette case		✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	
	Paper container		✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	
	Greeting cards			✓	✓	✓								✓	✓	
	Thin corrugated board							✓	✓	✓	✓					
	Thick Corrugated board					✓								✓	✓	
	Plastics	PE,PVC,PP	✓	✓	✓	✓								✓	✓	✓
		PET	✓	✓	✓	✓								✓	✓	✓
		Polycarbonate	✓	✓												
Vacuum forming				✓	✓								✓	✓	✓	
Electronics		Layered material labels (Paper&Plastic)					✓								✓	
		Protect film			✓	✓	✓							✓	✓	✓
	Gaskets	✓	✓	✓	✓								✓	✓	✓	

Conversion tables

Hardness	HV			HRC			HS		
	900	880	860	67.0	66.4	65.9	95	93	92
840	820	800	780	65.3	64.7	64.0	91	90	88
760	740	720	710	63.3	62.5	61.8	87	86	84
680	660	640	620	61.8	61.0	60.1	83	82	81
590	570	550	540	59.7	58.8	58.2	80	79	78
510	490	470	450	58.8	58.3	57.8	80	79	78
470	450	430	420	57.8	57.3	56.8	78	77	76
430	410	390	380	56.8	56.3	55.7	76	74	72
390	370	350	340	55.7	55.2	54.7	74	72	70
350	330	320	300	54.7	54.1	53.5	72	70	69
310	290	270	250	53.5	53.0	52.3	69	67	66
270	250	230	210	52.3	51.1	50.5	67	66	65
230	210	190	170	51.1	50.5	49.8	65	64	63
190	170	150	130	50.5	49.1	48.4	63	62	61
150	130	110	90	49.1	48.4	47.7	61	60	59
110	90	70	50	48.4	47.7	47.0	59	58	57
70	50	30	10	47.7	46.9	46.1	57	56	55
30	10	0	0	46.9	46.1	45.0	55	54	52
0	0	0	0	45.0	44.5	43.6	52	51	50
				44.5	44.5	43.6	50	49	48
				43.6	42.7	41.8	48	47	46
				42.7	41.8	40.8	46	45	44
				41.8	40.8	39.8	44	43	42
				40.8	39.8	38.5	42	41	40
				39.8	38.5	37.0	40	39	38
				38.5	37.0	36.6	38	37	36
				37.0	36.6	35.5	36	35	34
				36.6	35.5	34.5	34	33	32
				35.5	34.5	33.3	32	31	30
				34.5	33.3	32.2	30	29	28
				33.3	32.2	32.2	28	27	26

JAPAN Products

Since our establishment in 1951, Tsukatani has been making an exhaustive study of the quality of "cutting and punching". Manufacturing high quality, high precision and sharp cutting fine ground cutting blades.

To support world famous cutting-die, we develop every possible technique and provide high precision and elaborate top quality products.

ISDB

ISDB is a product combined strong points of CB, SB and SDB. The edge top exists on the center of rule thickness, it is easily replaced in case using CB. It can cut hard and thick products straight.

Body hardness	HV300~480
Edge hardness	HV620 / HV670
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt)
Bevel type	Special profile

Mirror

PL blade

The PL blade is a steel cutting rule developed to die cut thin plywood and jigsaw puzzles. Since the PL blade has triple long bevel profile with a long edge portion, it is able to cut thick materials such as Styrofoam and cushions without causing cut resistance.

Body hardness	HV300~445
Edge hardness	HV545 / HV670
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt)
Bevel type	Triple

Ground

ISDB/PL blade Purposes

Cut materials :

- * Paper + laminated film
- * Paper packaging + laminated film
- * Card board + cardboard with film
- * Cigarette boxes + laminated film
- * Pharmaceutical boxes + laminated film
- * Corrugated boxes board
- * Leather
- * Plastic: PP, PVC, PET, foam
- * Gaskets
- * Electronics: Film

R-type (Standard type)

Standard cutting blade. With a wide variety of hardness combination of edge top and blade body, it applies to the balance of cutting force and durability and high quality various materials and shapes.

Body hardness	HV300~480
Edge hardness	HV550 / HV610 / HV620 / HV670
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt) / 1.07mm (3pt)
Bevel type	CB (30° or 42° or 53°) / CDB (55°) / SB, SDB (51°)

Ground

G-type

The super G type is applied mirror-like finishing to provide an exceedingly sharp edge, thus it eliminates damage to cutting material and reduces cutting force. The mirror-like finishing has effect in providing smooth and beautiful cut surface and also preventing printed material from peeling or detaching, which can not be obtained by grinding process only.

Body hardness	HV300~480
Edge hardness	HV550 / HV610 / HV620 / HV670
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt)
Bevel type	CB (30° or 42°)

Mirror

WG-type

The super WG Type has been developed for the prevention of paper dust. We apply mirror-like finishing to the first facet of the double bevel rule profile to provide an optimal wear status for the edge without degrading the sharpness of the edge, thus it makes possible to prevent paper dust.

Body hardness	HV300~480
Edge hardness	HV620 / HV670
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt) / 1.07mm (3pt)
Bevel type	Special profile

Mirror on top & Ground

TK coating

For the issue of paste adhesion on blade edge, this cutting blade is processed by special coating. But the edge is not coated considering cutting force deteriorated by coating. It is used for preventing paste adhesion and cutting thick sheet sharply.

Non-adhesive coating

Base material

Normal: The entire cross section of the blade is made from homogeneous steel.
Code : S · MH · H · HH

J-1: The surface layer of cross section of the blade is made of decarburized steel, providing excellent bending workability and elastic strength.
Code : DS · DMHE · DMH · DH

J-2: The surface layer of cross section of the blade is made of deeply decarburized steel, creating more elastic bending workability.
Code : SF · MHF · HF

Body hardness				Edge hardness	
Normal	J-1	J-2	Hardness	Code	Hardness
S	DS	SF	HV300~325	70	HV550
—	DMHE	—	HV360	75	HV610
MH	DMH	MHF	HV385~390	80B	HV620
H	DH	HF	HV430~450	80	HV670
HH	—	—	HV480		

• t=0.7mm h=23.6~23.8mm

Cutting load

Products		Cut PVC (N)
R-type	∠30°	~80
	∠42°	~80
G-type	∠30°	~30
	∠42°	~50
ISDB	∠36°	~50
WG-type	∠50°	~60

Label

Label cutting rule is a steel cutting rule used to cut adhesive sheets such as seal labels, double-sided adhesive tapes and adhesion parts. Since this blade is bent into complexed profiles, they have thin thickness and different heights to adapt to machine specifications. The ground edge enables cutting adhesive sheets with a resin coating with small resistance.

Body hardness	HV325 / HV390
Edge hardness	HV545 / HV640
Height	5.2 ~ 12mm
Thickness	0.45mm (1.3pt)
Bevel type	CB (42°) / SDB (47°)

Ground

B-BLAST

This is also for the issue of paste adhesion on blade edge. B-BLAST is coated on the whole of blade. It is effective when it is required to prevent paste adhesion completely.

Non-adhesive coating

Packaging

■ Coil

Diameter	Code	A	B
ID		270	330
OD (t = 0.7)		400	450

Winding direction A and B diagrams.

Example: A-A

■ Straight

Steel cutting rule 915mm/1000mm
Standard length 100 pcs./case

Seal cutting rule 915mm
Standard length 100 pcs./case

TSUKATANI (THAILAND) CO.,LTD.
Pinthong Industrial Estate2,
150/92 M.9 T.Nongkham, A.Sriracha, Chonburi,
20110, THAILAND
Phone : +66(0)38-347-371 Fax : +66(0)38-347-372
e-mail / info@tsukatani.co.th

Mother Company
TSUKATANI HAMONO MFG. CO.,LTD.
5-30 Kusunecho, Yao City, Osaka 581-0814 Japan
International Sales Department
Phone : +81-72-996-8774 Fax : +81-72-996-7715
e-mail : ex-import@tsukatani-hamono.co.jp
https://www.tsukatani-hamono.co.jp

■ Contents and product specifications in this catalogue are subject to changes without notice.
■ If you need detailed information on availability and specifications of the products, etc., please contact with us.



TSUKATANI

STEEL CUTTING RULE



THAI Products

Tsukatani Thailand was established in 2013 with Japanese specialized processing technology and knowledge. We mainly manufacture shaved blades that are used around the world and also work with ground blades, applying the most advanced technology of Japan taking care of a wide range of customers. We provide the best suited blade to meet customers' requirement.

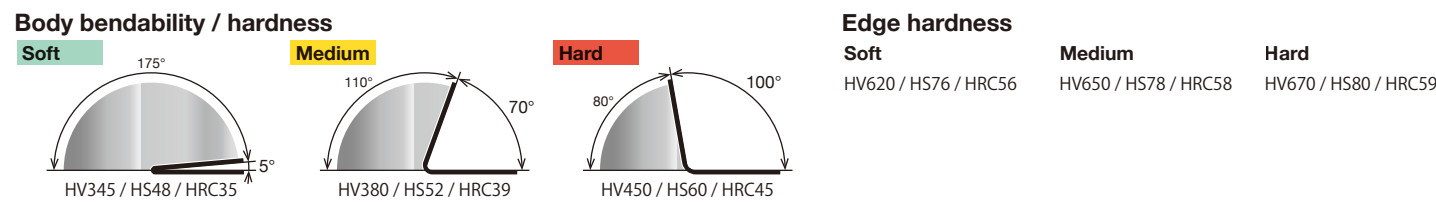
Shaved edge

Type Tignite S type

Type	CB	CDB	Cut materials :	Advantages :
1.5pt (0.53mm) Decarburized surface Soft	Edge hardened ∠42°/52° Height 23.6mm	Edge hardened ∠42°/52° Height 23.6mm	* Paper * Paper packaging * Card board * Cigarette boxes * Pharmaceutical boxes	* Easy bending
2pt (0.71mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Paper * Paper packaging * Card board * Cigarette boxes * Pharmaceutical boxes * Thin corrugated boxes	* General standard dieboard
3pt (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Thick Paper * Paper packaging * Card board * Thick corrugated boxes	* Thick corrugated boxes and hard cardboard

Type Tignite SP type

Type	CB	CDB	Cut materials :	Advantages :
1.5pt (0.53mm) Decarburized surface Soft	Edge hardened ∠42°/52° Polished Height 23.6mm	Edge hardened ∠42°/52° Polished Height 23.6mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film	* Easy bending
2pt (0.71mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Thin corrugated boxes	* General standard dieboard
3pt (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	* Thick Paper + laminated film * Paper packaging + laminated film * Card board + laminated film * Thick corrugated boxes + laminated film	* Thick corrugated boxes and hard cardboard



Shaved edge TOUGH EDGE for extra longevity

Type Tignite WS type

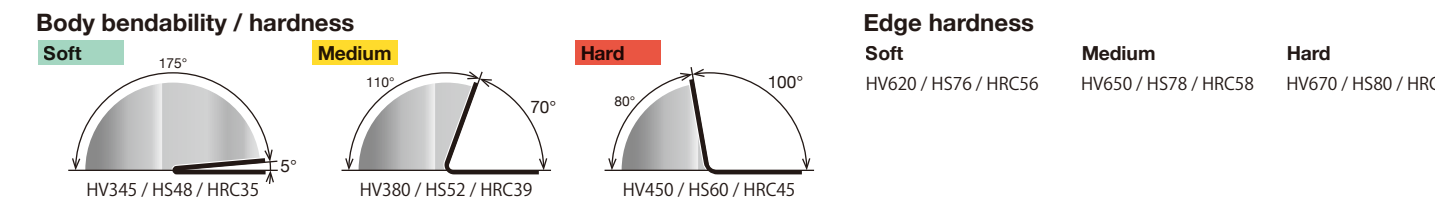
Type	CB	CDB	Cut materials :	Advantages :
2pt (0.71mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Paper * Paper packaging * Card board * Cigarette boxes * Pharmaceutical boxes * Thin corrugated boxes	* General standard dieboard and long run jobs
3pt (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Thick Paper * Paper packaging * Card board * Thick corrugated boxes	* Thick corrugated boxes and hard cardboard and long run jobs
2pt (0.71mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Thin corrugated boxes	* General standard dieboard cut material with film and long run jobs
3pt (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	* Thick Paper + laminated film * Paper packaging + laminated film * Card board + laminated film * Thick corrugated boxes + laminated film	* Thick corrugated boxes and hard cardboard and long run jobs

Type Tignite WSP type

Type	CB	CDB	Cut materials :	Advantages :
2pt (0.71mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	* Thick Paper + laminated film * Paper packaging + laminated film * Card board + laminated film * Thick corrugated boxes + laminated film	* Thick corrugated boxes and hard cardboard and long run jobs
3pt (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Polished Height 23.6mm 23.8mm	* Thick Paper + laminated film * Paper packaging + laminated film * Card board + laminated film * Thick corrugated boxes + laminated film	* Thick corrugated boxes and hard cardboard and long run jobs

Type Tignite M type

Type	CB	CDB	Cut materials :	Advantages :
2pt (0.71mm) Decarburized surface Soft Medium	Edge hardened R0.02 ∠42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Thin paper + long run job * Thin paper packaging + long run job * Card board + long run job * Cigarette boxes + long run job * Pharmaceutical boxes + long run job	* Especially long run jobs for paper packaging
3pt (1.05mm) Decarburized surface Soft Medium	Edge hardened R0.02 ∠42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Thick paper + long run job * Thick paper packaging + long run job * Thick Card board + long run job * Thick Cigarette boxes + long run job * Pharmaceutical boxes + long run job	* Especially long run jobs for paper packaging



Ground edge

Type Tignite R type

Type	CB	CDB	Cut materials :	Advantages :
1.5pt (0.53mm) Decarburized surface Soft	Edge hardened ∠30°/42°/52° Height 23.6mm	Edge hardened ∠42°/52° Height 23.6mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Corrugated boxes board * Leather	* Plastic: PP, PVC, PET, foam * Gaskets * Electronics: Film * Advantages : * Reduce paper dust, clear cut. * More Sharp * Low pressure * Easy bending
2pt (0.71mm) Decarburized surface Soft Medium Hard	Edge hardened ∠30°/42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Corrugated boxes board * Leather	* Plastic: PP, PVC, PET, foam * Gaskets * Electronics: Film * Advantages : * Reduce paper dust, clear cut. * More Sharp ~ 100N * Low pressure * Easy bending
3pt (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Corrugated boxes board * Leather	* Plastic: PP, PVC, PET, foam * Gaskets * Electronics: Film * Advantages : * Reduce paper dust, clear cut. * More Sharp ~ 100N * Low pressure * Strong

Type Tignite Plus type

Type	CB	CDB	Cut materials :	Advantages :
2pt (0.71mm) Decarburized surface Soft Medium Hard	Edge hardened ∠30°/42°/52° Semi-Mirror finished portion Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Semi-Mirror finished portion Height 23.6mm 23.8mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Corrugated boxes board * Leather	* Plastic: PP, PVC, PET, foam * Gaskets * Electronics: Film * Advantages : * Reduce paper dust, clear cut. * Super Sharp * Very Low pressure ~ 80N * Easy bending * Mirror Type
3pt (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Semi-Mirror finished portion Height 23.6mm 23.8mm	Edge hardened ∠42°/52° Semi-Mirror finished portion Height 23.6mm 23.8mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Corrugated boxes board * Leather	* Plastic: PP, PVC, PET, foam * Gaskets * Electronics: Film * Advantages : * Reduce paper dust, clear cut. * Super Sharp * Very Low pressure ~ 80N * Strong * Mirror Type

Type Tignite RF type

Type	CDB	Cut materials :	Advantages :
2pt/3pt (0.71mm) (1.05mm) Decarburized surface Soft Medium Hard	Edge hardened ∠42°/52° Height 23.6mm 23.8mm	* Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Corrugated boxes board * Leather	* Plastic: PP, PVC, PET, foam * Gaskets * Electronics: Film * Advantages : * Reduce paper dust, clear cut. * Very Sharp ~ 100N * Low pressure * Easy bending

Crease Rules

2pt

Type	SR	BR	AA
Height	22.0mm ~ 24.0mm		
Bevel type	SR / BR / AA		

3pt

Type	SR	BR	AA
Height	22.0mm ~ 24.0mm		
Bevel type	SR / BR / AA		

Cutting Load

Pt	Products	∠	Cut PVC (N)
2pt	Tignite (S)	∠42°	~330
		∠52°	~430
	Tignite (SP)	∠42°	~230
		∠52°	~330
	Tignite (WS)	∠42°	~430
		∠52°	~530
Tignite (WSP)	∠42°	~330	
	∠52°	~430	
TIGNITE (R)	∠42°	~100	
	∠52°	~120	

Pt	Products	∠	Cut PVC (N)
2pt	Tignite (PLUS)	∠30°	~80
		∠52°	~80
	Tignite (M)	∠42°	~100
		∠52°	~1000
Tignite (RF)	∠42°	~100	
	∠52°	~120	

Pt	Products	∠	Cut PVC (N)
3pt	Tignite (S)	∠42°	~380
		∠52°	~480
	Tignite (SP)	∠42°	~380
		∠52°	~100
Tignite (M)	∠42°	~100	
	∠52°	~120	

Tolerance

Height H = ±0.02mm

Thickness T = ±0.015mm

Dish / Camber X1 = ±0.10% of height.(H)

Back bow and Edge bow (Per 1,000mm length and except coil products) X2 = ±0.50mm

Twist (Per 1,000mm length) Max Y = The body thickness

Flatness (Per 1,000mm length and except coil products) X3 = ±5mm

Packaging

Coil

A (Clockwise) B (Counter-Clockwise)

Straight

Steel cutting rule 1000mm Standard length

Inner diameter	Coil direction	Coil for 23.60~23.80mm height	Straight Steel cutting rule
A 270mm	A Clockwise	0.53mm (1.5pt) → 100m	0.53mm (1.5pt) → 140pcs
B 330mm	B Counter-Clockwise	0.71mm (2pt) → 100m	0.71mm (2pt) → 100pcs
465mm		1.05mm (3pt) → 70m	1.05mm (3pt) → 70pcs

For example 1: "BA"=ID330mm and Clockwise
For example 2: "465B"=ID465mm and Counter-Clockwise