Applications

		Japan								Thai							
		Ground					Coated			Shaved					Ground		
		ISDB	PL blade	R-type	G-type	WG-type	Label	TK coating	B-BLAST	S	SP	WS	WSP	M	R	Plus	RF
Advantage	Reduce angel hair (dust)			✓	✓	✓									✓	✓	✓
	Increased die life time					✓						✓	✓	✓			
	Reduce cutting pressure				✓											✓	
	Non-adherent							✓	✓								
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	67.0	95
	880	66.4	93
	860	65.9	92
	840	65.3	91
	820	64.7	90
	800	64.0	88
	780	63.3	87
	760	62.5	86
	740	61.8	84
	720	61.0	83
	710	—	82
	700	60.1	81
	690	59.7	—
	680	59.2	—
	670	58.8	80
	660	58.3	79
	650	57.8	78
	640	57.3	77
	630	56.8	—
	620	56.3	76
	610	55.7	—
	600	55.2	74
	590	54.7	—
	580	54.1	72
	575	—	—
	570	53.6	—
	560	53.0	71
	550	52.3	70
	545	—	—
	540	51.7	69
	535	—	—
	530	51.1	68
	525	—	—
	520	50.5	67
	510	49.8	—
	500	49.1	66
	490	48.4	—
	480	47.7	64
	475	—	—
	470	46.9	—
	460	46.1	62
Hard	450	45.0	60
	445	—	—
	440	44.5	59
	430	43.6	—
	420	42.7	57
	410	41.8	—
	400	40.8	55
	395	—	—
	390	39.8	—
	385	—	—
Medium	380	39.0	52
	370	37.7	—
	360	36.6	50
	350	35.5	—
Soft	345	35.0	48
	340	34.4	47
	330	33.3	—
	325	—	—
	320	32.2	45

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■ 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.

2025.1.1600

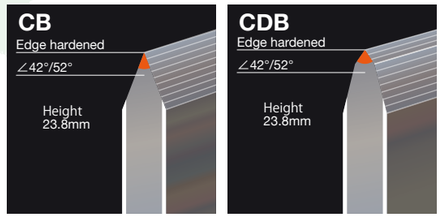
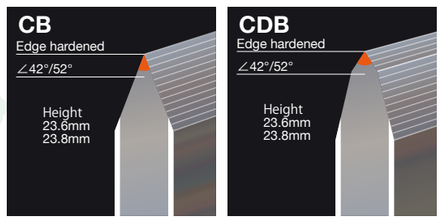
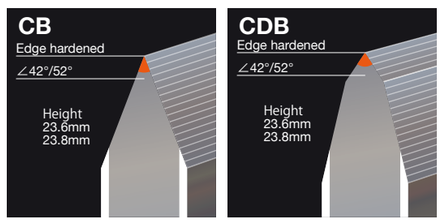
THAI Products

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.

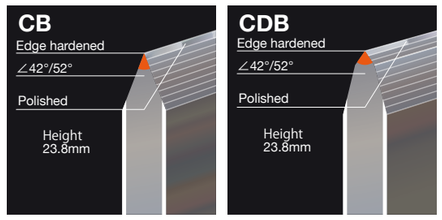
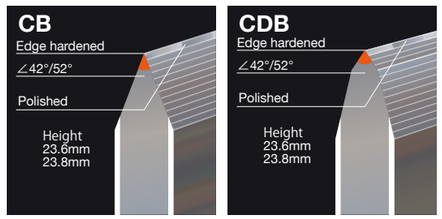
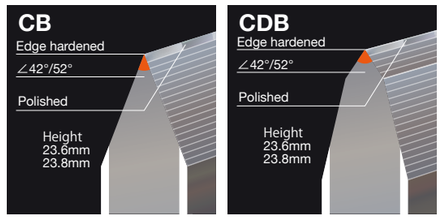
TSUKATANI
STEEL CUTTING RULE

Shaved edge

Tignite S type

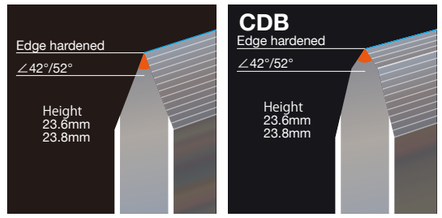
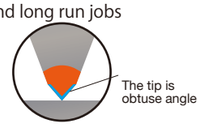
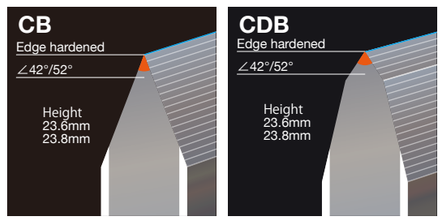
Type		Purposes	
1.5pt (0.53mm) Decarburized surface Soft		**Cut materials :** * Paper * Paper packaging * Card board * Cigarette boxes * Pharmaceutical boxes	**Advantages :** * Easy bending
2pt (0.71mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Paper * Paper packaging * Card board * Cigarette boxes * Pharmaceutical boxes * Thin corrugated boxes	**Advantages :** * General standard dieboard
3pt (1.05mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Thick Paper * Paper packaging * Card board * Thick corrugated boxes	**Advantages :** * Thick corrugated boxes and hard cardboard

Tignite SP type

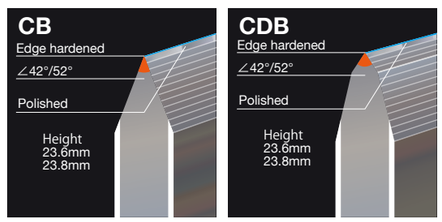
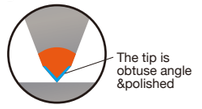
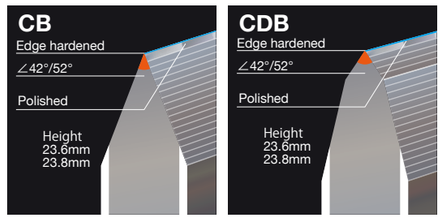
Type		Purposes	
1.5pt (0.53mm) Decarburized surface Soft		**Cut materials :** * Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film	**Advantages :** * Easy bending
2pt (0.71mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Thin corrugated boxes	**Advantages :** * General standard dieboard
3pt (1.05mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Thick Paper + laminated film * Paper packaging + laminated film * Card board + laminated film * Thick corrugated boxes + laminated film	**Advantages :** * Thick corrugated boxes and hard cardboard

Shaved edge TOUGH EDGE for extra longevity

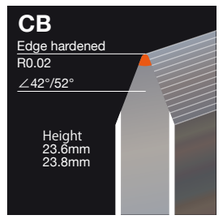
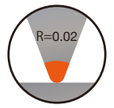
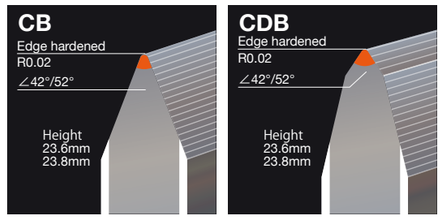
Tignite WS type

Type		Purposes	
2pt (0.71mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Paper * Paper packaging * Card board * Cigarette boxes * Pharmaceutical boxes * Thin corrugated boxes	**Advantages :** * General standard dieboard and long run jobs 
3pt (1.05mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Thick Paper * Paper packaging * Card board * Thick corrugated boxes	**Advantages :** * Thick corrugated boxes and hard cardboard and long run jobs

Tignite WSP type

Type		Purposes	
2pt (0.71mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Paper + laminated film * Paper packaging + laminated film * Card board + cardboard with film * Cigarette boxes + laminated film * Pharmaceutical boxes + laminated film * Thin corrugated boxes	**Advantages :** * General standard dieboard cut material with film and long run jobs 
3pt (1.05mm) Decarburized surface Soft / Medium / Hard		**Cut materials :** * Thick Paper + laminated film * Paper packaging + laminated film * Card board + laminated film * Thick corrugated boxes + laminated film	**Advantages :** * Thick corrugated boxes and hard cardboard and long run jobs

Tignite M type

Type		Purposes	
2pt (0.71mm) Decarburized surface Soft / Medium		**Cut materials :** * 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	**Advantages :** * Especially long run jobs for paper packaging 
3pt (1.05mm) Decarburized surface Soft / Medium		**Cut materials :** * 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	**Advantages :** * Especially long run jobs for paper packaging

THAI Products

Ground edge

Type | Purposes

Tignite R type

1.5pt (0.53mm) Decarburized surface — Soft

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

Advantages :
* Reduce paper dust, clear cut.
* More Sharp
* Low pressure
* Easy bending

2pt (0.71mm) Decarburized surface — Soft / Medium / Hard

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

Advantages :
* Reduce paper dust, clear cut.
* More Sharp ~ 100N
* Low pressure
* Easy bending

3pt (1.05mm) Decarburized surface — Soft / Medium / Hard

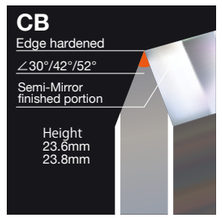
Cut materials :
* Paper + laminated film
* Paper packaging + laminated film
* Card board + cardboard with film
* Cigarette boxes + laminated film
* Pharmaceutical boxes + laminated film
* Corrugated boxes board
* Leather

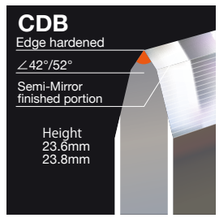
* Plastic: PP, PVC, PET, foam
* Gaskets
* Electronics: Film

Advantages :
* Reduce paper dust, clear cut.
* More Sharp ~ 100N
* Low pressure
* Strong

Tignite Plus type

2pt (0.71mm) Decarburized surface — Soft / Medium / Hard



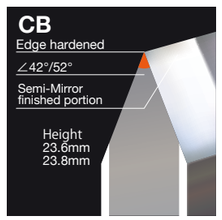


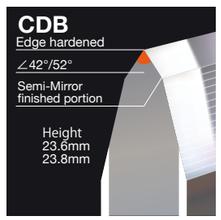
Cut materials :
* Paper + laminated film
* Paper packaging + laminated film
* Card board + cardboard with film
* Cigarette boxes + laminated film
* Pharmaceutical boxes + laminated film
* Corrugated boxes board
* Leather

* Plastic: PP, PVC, PET, foam
* Gaskets
* Electronics: Film

Advantages :
* Reduce paper dust, clear cut.
* Super Sharp
* Very Low pressure ~ 80N
* Easy bending
* Mirror Type

3pt (1.05mm) Decarburized surface — Soft / Medium / Hard





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

Advantages :
* Reduce paper dust, clear cut.
* Super Sharp
* Very Low pressure ~ 80N
* Strong
* Mirror Type

Type | Purposes

Tignite RF type

2pt/3pt (0.71mm) (1.05mm) Decarburized surface — Soft / Medium / Hard

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

Advantages :
* Reduce paper dust, clear cut.
* Very Sharp ~ 100N
* Low pressure
* Easy bending

Tignite CW

2pt (0.71mm) Decarburized surface — Hard

Body hardened : HS60
Edge hardened : HS80

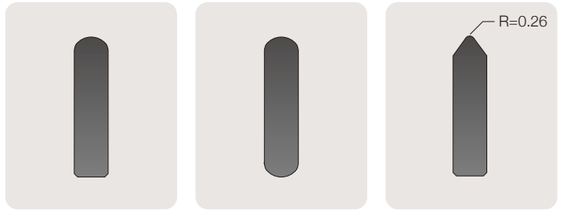
Cut materials :
* Paper + laminated film
* Paper packaging + laminated film
* Card board + cardboard with film
* Cigarette boxes + laminated film
* Pharmaceutical boxes + laminated film
* Corrugated boxes board
* Leather

* Plastic: PP, PVC, PET, foam
* Gaskets
* Electronics: Film

Advantages :
* Reduce paper dust, clear cut.
* Very Sharp ~ 100N
* Low pressure
* Easy bending

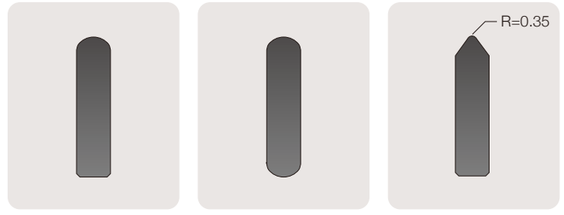
Crease Rules

2pt



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

3pt



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

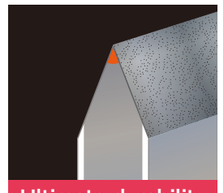
TiN

Long run

Material : Titanium
Film thickness : 1μm~3μm

Bevel coated with an edge hardness of HV2000; It's the latest and the hardest coating for cutting rules. For extra longevity and stops the edge from being worn away. The hardness doesn't affect the bendability.

CrN

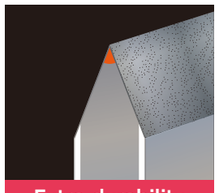


Long run

Material : Chromium nitride
Film thickness : 1μm~3μm

Bevel coated with an edge hardness of HV2000; It's the latest and the hardest coating for cutting rules. For extra longevity and stops the edge from being worn away. The hardness doesn't affect the bendability.

Impress

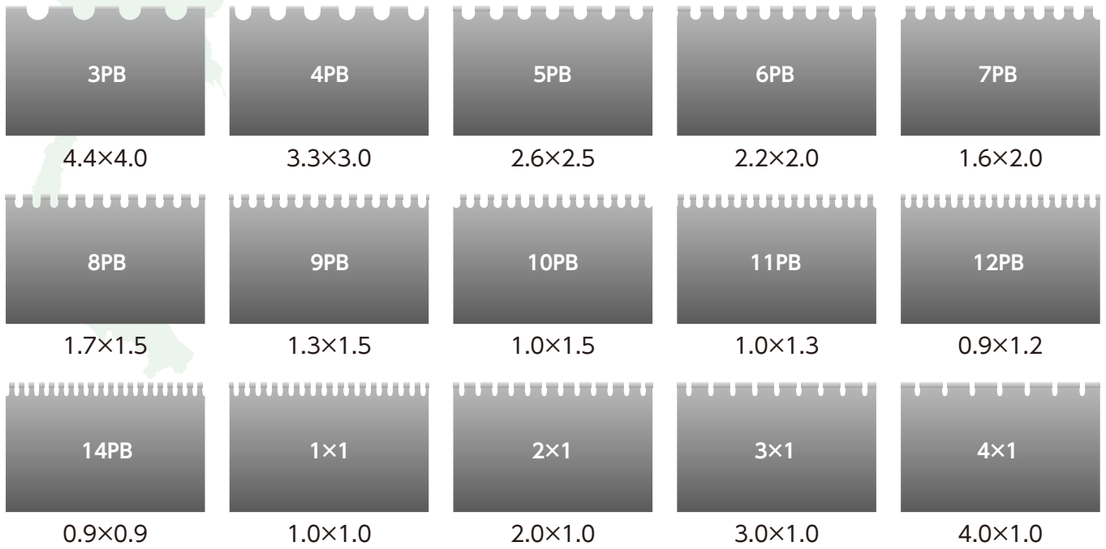


Non-adhesive Middle run

Material : Fluorine
Hardness : H3
Film thickness : 10~15μm

This knife has excellent durability due to special pretreatment before the coating and the coating is suited for anti-adhesive uses as well.

Profile of perforation rule (Actual Size：Thickness 0.71mm)



Perforation rule

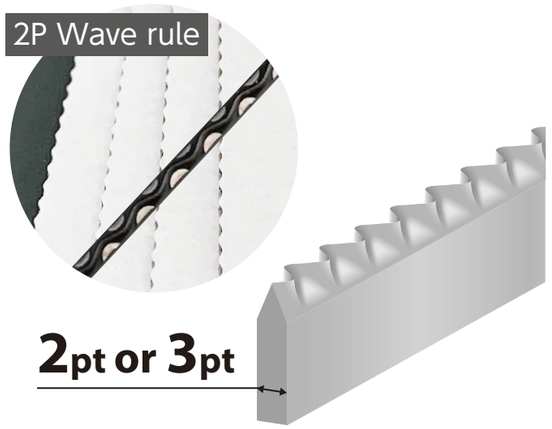
Thickness	Blade Height	Cut	Uncut	Uncut depth(1.5pt & 2pt)	Uncut deepth(3pt)
1.5pt (0.53mm) ～ 3pt (1.05mm)	23.80mm	1mm～5mm	0.8mm～5mm	2.5mm	5.0mm

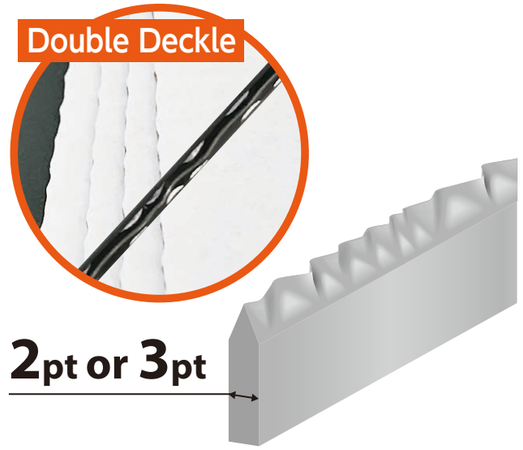
- The standard length is 1000mm.
- To be able to make the edge hardened products and coil products.

Wave rule

Double Deckle

Feature: Random wave edges reduce injury on finger from corrugated boards after cutting.





Pitches

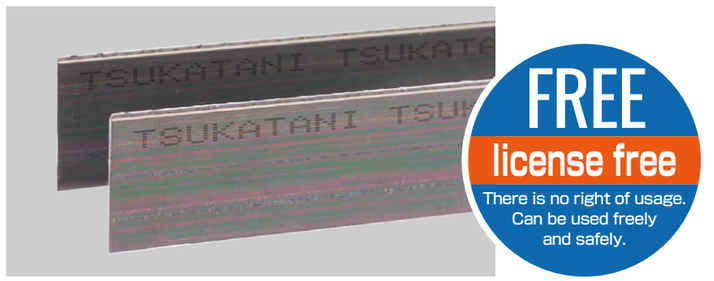
1p
2p
3p
4p

Pitch

Random wave allows smoother and safer cut surface

Benefit:
For better creasing in corrugated and fiber hoards.
Edge hardend wave rules offer perfect bendability and high wear resistance.
The wave prevents iujury.

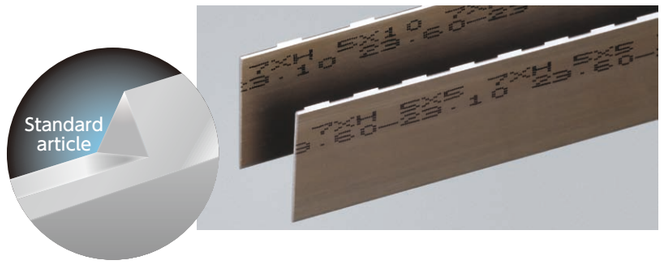
- Can be offered from 1 coil.



Cut Crease

Thickness	Blade Height	Cut	Crease	Crease Height
2pt(0.71mm)	23.80mm	2mm~15mm	2mm~20mm	ask
3pt(1.05mm)		5mm~15mm	5mm~15mm	

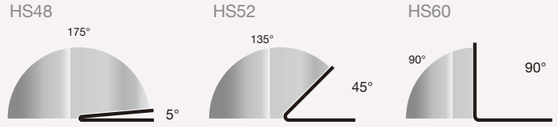
- The standard length is 1000mm.
- To be able to make the edge hardened products and coil products.



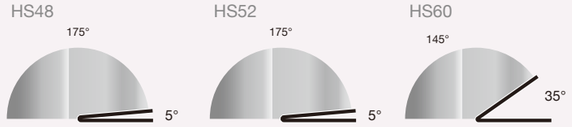
Reference

Body bendability

Test condition：2pt(0.5R Tool)・Handbender

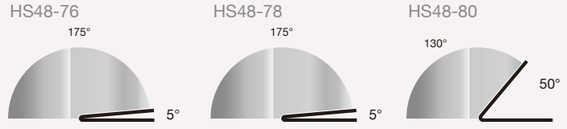


Test condition：2pt・(1.0R Tool)・Handbender

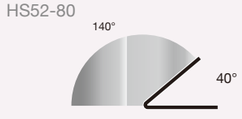


Tip bendability

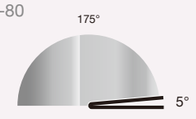
Test condition：2pt・Ground edge・CB42°・(0.5R Tool)・Handbender



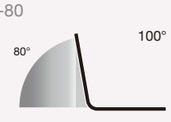
Test condition：2pt・Ground edge・CDB42°・(0.5R Tool)・Handbender



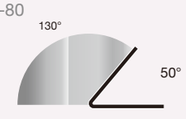
Test condition：2pt・Ground edge・CDB42°・(1.0R Tool)・Handbender



Test condition：2pt・Ground edge・CDB42°・(0.5R Tool)・Handbender



Test condition：2pt・Ground edge・CDB42°・(1.0R Tool)・Handbender



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

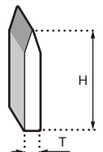
Pt	Products		Cut PVC (N)
2pt	Tignite〈PLUS〉	∠30°	~80
		∠42°	~80
		∠52°	~100
	Tignite〈M〉	∠42°	~1000
		∠52°	~1000
	Tignite〈RF〉	∠42°	~100
		∠52°	~120

Pt	Products		Cut PVC (N)
3pt	Tignite〈S〉	∠42°	~380
		∠52°	~450
	Tignite〈SP〉	∠52°	~380
	Tignite〈R〉	∠42°	~100
		∠52°	~120
	Tignite〈M〉	∠52°	~1000

Tolerance

Height **H = ±0.02mm**

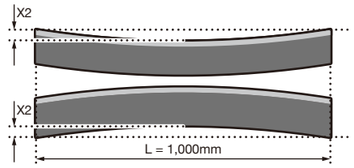
Thickness **T = ±0.015mm**



Back bow and Edge bow

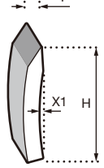
(Per 1,000mm length and except coil products)

X2 = ±0.50mm



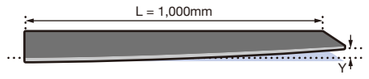
Dish / Camber

X1 = ±0.10% of height.(H)



Twist **(Per 1,000mm length)**

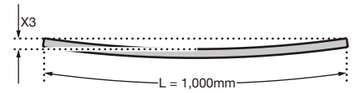
Max Y = The body thickness



Flatness

(Per 1,000mm length and except coil products)

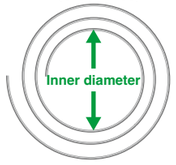
X3 = ±10mm



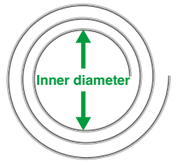
Packaging

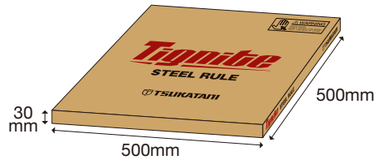
■ Coil

A (Clockwise)



B (Counter-Clockwise)





Inner diameter	
A	270mm
B	350mm
C	465mm

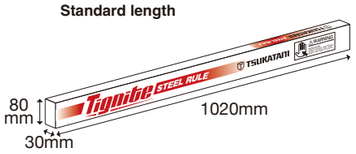
Coil direction	
A	Clockwise
B	Counter-Clockwise

Coil for 23.60~23.80mm height		
0.53mm (1.5pt)	→	120m
0.71mm (2pt)	→	100m
1.05mm (3pt)	→	70m

For example : "C465B"=ID465mm and Counter-Clockwise

■ Straight

Steel cutting rule 1000mm
Standard length



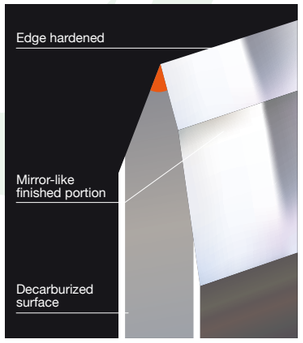
Straight Steel cutting rule		
0.53mm (1.5pt)	→	120pcs
0.71mm (2pt)	→	100pcs
1.05mm (3pt)	→	70pcs

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.

TSUKATANI
STEEL CUTTING RULE

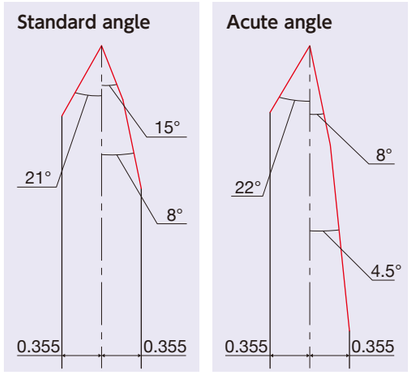
ISDB



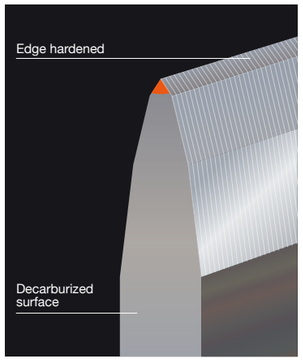
ISDB is a product combined strong points of CB, SB and SDB. The edge top exists on the center of rule thickness, it is easily replaced in case using CB. It can cut hard and thick products straight.

Body hardness	HS46～53
Edge hardness	HS70～80
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	HS42～60
Edge hardness	HS70～80
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt)
Bevel type	Triple

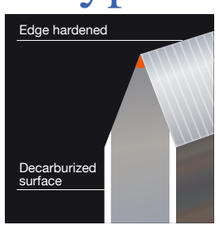
Ground

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)

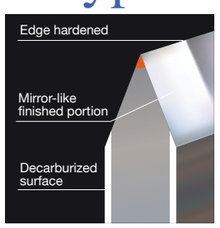


Standard cutting blade. With a wide variety of hardness combination of edge top and blade body, it applies to the balance of cutting force and durability and high quality various materials and shapes.

Body hardness	HS42～60
Edge hardness	HS70～80
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt) / 1.07mm (3pt)
Bevel type	CB (30° or 42° or 50°) / CDB (55°) / SB,SDB (51°)

Ground

G-type

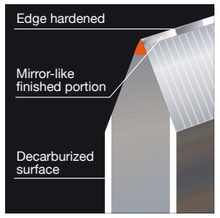


The super G type is applied mirror-like finishing to provide an exceedingly sharp edge, thus it eliminates damage to cutting material and reduces cutting force. The mirror-like finishing has effect in providing smooth and beautiful cut surface and also preventing printed material from peeling or detaching,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

Body hardness	HS46～60
Edge hardness	HS70～80
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt)
Bevel type	CB (30° or 42°)

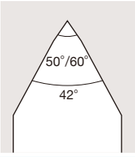
Mirror

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	HS53～60
Edge hardness	HS75～76
Height	23.6mm / 23.8mm
Thickness	0.71mm (2pt) / 1.07mm (3pt)
Bevel type	Special profile

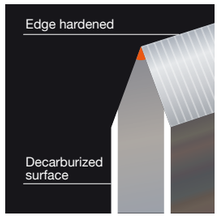


Mirror on top & Ground

TK coating Non-adhesive 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.

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	HS50～53
Edge hardness	HS70～80
Height	5.2 ～ 12mm
Thickness	0.45mm (1.3pt)
Bevel type	CB (42°) / SDB (47°)

Ground

B-BLAST Non-adhesive coating

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.

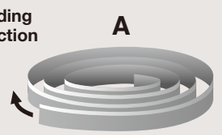
Packaging

■ **Coil**

Coil size (mm)

Diameter \ Code	A	B	C
ID	270	350	465
OD (t = 2pt)	400	460	560

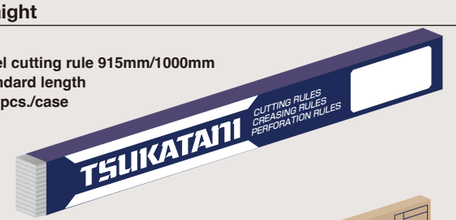
Winding direction



Example : A・A
Winding direction
Coil size (ID)

■ **Straight**

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



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