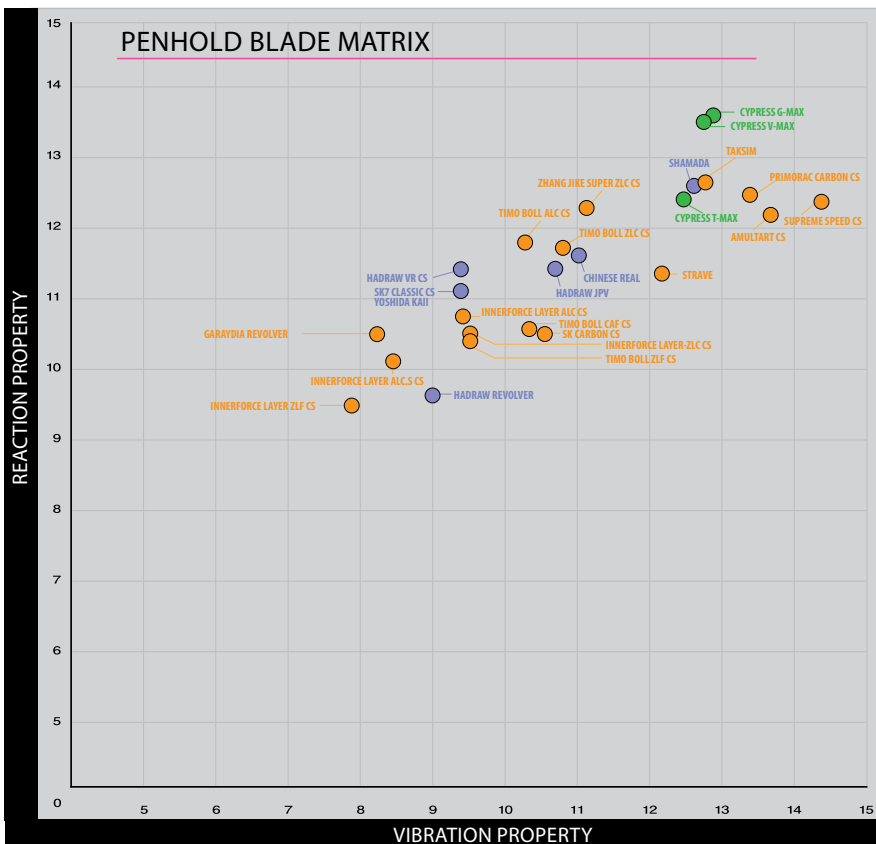


# BUTTERFLY SHAKEHAND BLADE SPECIFICATION CHART

BLADE	PLAYING STYLES	PLIES	REACTION	VIBRATION	WEIGHT (Grams) Avg.	BLADE DIMS (MM)		HEAD THICKNESS (MM)	HANDLE DIMS (MM)		
						H	W		AN	FL	SI / ST
AMULTART	ATTACK SHAKE	3W+2ZLC	12.2	13.7	86	157	150	7.1	X	100X25	100X24 (SI)
ANDRZEJ GRUBBA	ALL-ROUND SHAKE	5W	9.7	7.9	85	159	151	5.7	100X25	100X25	100X25
APOLONIA ZLC	ATTACK SHAKE	5W+2ZLC	10.5	9.5	89	157	150	5.7	100X24	100X24	100X23
BALSACARBO X5	ATTACK SHAKE	3W+2C	8.7	9.0	80	159	150	6.7	100X25	100X25	100X25
BOLL ALLROUND	ALL-ROUND SHAKE	5W	9.6	8.3	85	158	150	5.8	100X25	100X25	100X25
BOLL ALLROUND XXS	ALL-ROUND SHAKE	5W	9.6	8.3	85	153	146	5.5	X	97X22	X
BOLL CONTROL	ALL-ROUND SHAKE	5W	8.6	8.8	85	158	150	5.9	100X25	100X25	100X25
BOLL FORTE	ATTACK SHAKE	5W	11.0	9.0	90	158	150	6.0	100X25	100X25	100X25
BOLL OFFENSIVE	ATTACK SHAKE	5W	10.9	8.7	90	158	150	6.0	100X25	100X25	100X25
DIODEV	DEFENSE SHAKE	5W	10.6	7.9	97	165	156	5.7	X	100X24	100X23
FREITAS ALC	ATTACK SHAKE	5W+2ALC	11.4	10.8	84	157	150	6.0	100X25	100X25	100X23
GARAYDIA ALC	ATTACK SHAKE	3W+2ALC	11.4	13.0	82	157	150	6.9	100X24	100X24	100X23
GARAYDIA T5000	ATTACK SHAKE	3W+2T5000	13.6	14.5	89	157	150	7.2	100X25	100X25	100X23
GARAYDIA ZLC	ATTACK SHAKE	3W+2ZLC	12.2	13.7	86	157	150	7.1	100X25	100X25	100X23
GIONIS CARBON ALLROUND	ATTACK SHAKE	5W+2C	10.2	8.0	85	159	152	5.7	100X25	100X25	100X25
GIONIS CARBON OFFENSIVE	ATTACK SHAKE	5W+2C	11.0	8.8	90	159	152	6.2	100X25	100X25	100X25
HADRAW SHIELD	DEFENSE SHAKE	5W	7.9	6.3	92	166	155	5.3	X	100X24	100X23
HADRAW SK	ATTACK SHAKE	7W	10.0	8.6	85	157	150	6.4	100X24	100X24	100X22
HADRAW SR	ATTACK SHAKE	7W	10.8	9.1	92	157	150	6.6	100X24	100X24	100X23
HADRAW VK	ATTACK SHAKE	5W	10.5	8.4	82	157	150	5.7	100X24	100X24	100X23
HADRAW VR	ATTACK SHAKE	5W	11.4	9.3	88	157	150	5.9	100X25	100X25	100X23
INNERFORCE LAYER ALC	ATTACK SHAKE	5W+2ALC	10.7	9.4	85	157	150	6.0	100X25	100X25	100X23
INNERFORCE LAYER ALC.S	ATTACK SHAKE	5W+2ALC	10.1	8.4	88	157	150	5.5	100X24	100X24	100X23
INNERFORCE LAYER ZLC	ATTACK SHAKE	5W+2ZLC	10.5	9.5	85	157	150	5.7	100X24	100X24	100X23
INNERFORCE LAYER ZLF	ATTACK SHAKE	5W+2ZLF	9.6	7.9	86	157	150	5.3	100X24	100X24	100X22
INNERSHIELD LAYER ZLF	DEFENSE SHAKE	5W+2ZLF	5.5	4.9	85	166	155	5.1	X	100X24	100X23
JOO SAEHYUK	DEFENSE SHAKE	5W	10.4	8.5	101	165	156	6.0	X	100X24	100X23
KONG LINGHUI	ATTACK SHAKE	5W	10.6	8.4	90	154	148	5.5	X	100X24	X
KORBEL SK7	ATTACK SHAKE	7W	11.1	9.3	92	157	150	6.8	100X24	100X24	100X23
MATSUDAIRA KENTA ALC	ATTACK SHAKE	5W+2ALC	11.8	10.3	85	157	150	5.8	X	100X23	X
MAZE MAGIC	ALL-ROUND SHAKE	5W	9.5	8.5	85	159	151	5.9	100X24	100X24	100X24
MAZE PERFORMANCE	ATTACK SHAKE	5W	10.6	10.2	73	157	150	6.7	X	100X24	X
MAZUNOV	ATTACK SHAKE	5W	12.4	10.5	102	158	152	6.7	100X25	100X25	100X23
MIZUTANI JUN SUPER ZLC	ATTACK SHAKE	5W+2SZLC	12.5	11.6	90	157	150	5.8	100X24	100X24	100X22
MIZUTANI JUN ZLC	ATTACK SHAKE	5W+2ZLC	11.8	11.2	85	157	150	5.7	100X24	100X24	100X22
PETR KORBEL	ATTACK SHAKE	5W	10.6	8.2	90	158	152	5.9	X	100X24	100X23
PRIMORAC	ATTACK SHAKE	5W	9.7	7.6	84	157	150	5.5	X	100X25	X
PRIMORAC CARBON	ATTACK SHAKE	3W+2T5000	12.5	13.3	89	157	150	7.0	X	100X25	100X23
SARDIUS	ATTACK SHAKE	3W+2T5000	12.8	14.4	92	158	152	7.2	X	100X25	X
SK CARBON	ATTACK SHAKE	3W+2T5000	10.5	10.5	76	157	150	5.2	X	100X24	100X23
SK7 CLASSIC	ATTACK SHAKE	7W	11.1	9.3	90	157	150	6.8	X	100X25	100X23
TIMO BOLL ALC	ATTACK SHAKE	5W+2ALC	11.8	10.3	84	157	150	5.8	100X24	100X24	100X22
TIMO BOLL CAF	ATTACK SHAKE	3W + 2CAF	10.6	10.4	82	157	150	5.7	X	100X24	100X22
TIMO BOLL J	ATTACK SHAKE	5W	10.4	10.6	70	152	144	6.1	X	92X22	X
TIMO BOLL TJ	ATTACK SHAKE	3W + 2T5000	10.5	11.4	70	154	146	5.2	X	95X21	X
TIMO BOLL SPIRIT	ATTACK SHAKE	5W+2ALC	11.8	10.3	87	157	150	5.8	100X24	100X24	100X22
TIMO BOLL T5000	ATTACK SHAKE	5W+2T5000	12.6	11.3	90	157	150	5.6	100X24	100X24	100X22
TIMO BOLL W7	ATTACK SHAKE	7W	11.4	10.0	94	157	150	6.8	100X24	100X24	100X22
TIMO BOLL ZLC	ATTACK SHAKE	5W+2ZLC	11.7	10.8	84	157	150	5.5	100X24	100X24	100X22
TIMO BOLL ZLF	ATTACK SHAKE	5W+2ZLF	10.5	9.4	82	157	150	5.4	100X24	100X24	100X22
VISCARIA	ATTACK SHAKE	5W+2ALC	11.8	10.3	85	157	150	5.8	X	100X25	X
X-STAR IV	ALL-ROUND SHAKE	5W	10.0	10.1	78	154	148	6.1	X	102X24	X
ZHANG JIKE ALC	ATTACK SHAKE	5W+2ALC	11.8	10.3	86	157	150	5.8	102X24	100X25	100X23
ZHANG JIKE SUPER ZLC	ATTACK SHAKE	5W+2SZLC	12.3	11.1	87	157	150	5.6	102X24	100X25	100X23
ZHANG JIKE ZLC	ATTACK SHAKE	5W+2ZLC	11.7	10.8	86	157	150	5.5	102X24	100X25	100X2

# BUTTERFLY PENHOLD SPECIFICATION CHART

BLADE	PLAYING STYLES	PLIES	REACTION	VIBRATION	WEIGHT (Grams) Avg.	BLADE DIMS (MM) H W		HEAD THICKNESS (MM)	HANDLE DIMS (MM)
<b>CHINESE STYLE</b>									
AMULTART CS	QUICK ATTACK PEN	3W+2ZLC	12.2	13.7	84	161	150	7.1	82X25
CHINESE REAL	QUICK ATTACK PEN	5W	11.6	11.0	77	158	150	7.7	82X24
HADRAW VR CS	QUICK ATTACK PEN	5W	11.4	9.3	85	161	150	5.9	82X24
INNERFORCE LAYER ALC CS	QUICK ATTACK PEN	5W+2ALC	10.7	9.4	85	161	150	6.0	82X24
INNERFORCE LAYER ALC.S CS	QUICK ATTACK PEN	5W+2ALC	10.1	8.4	88	161	150	5.5	82X24
INNERFORCE LAYER ZLC CS	QUICK ATTACK PEN	5W+2ZLC	10.5	9.5	83	161	150	5.7	82X24
INNERFORCE LAYER ZLF CS	QUICK ATTACK PEN	5W+2ZLF	9.6	7.9	86	161	150	5.3	82X23
PRIMORAC CARBON CS	QUICK ATTACK PEN	3W+2T5000	12.5	13.3	84	161	150	6.9	82X25
SK CARBON CS	QUICK ATTACK PEN	3W+2T5000	10.5	10.5	76	161	150	5.2	82X24
SK7 CLASSIC CS	QUICK ATTACK PEN	7W	11.1	9.3	91	161	150	6.8	82X24
SHAMADA	QUICK ATTACK PEN	5W	12.6	12.6	84	160	150	7.5	80X23
STRAVE	QUICK ATTACK PEN	3W+2T5000	11.4	12.2	74	158	150	6.7	82X23
SUPREME SPEED CS	QUICK ATTACK PEN	3W+2ALC	12.4	14.3	79	157	150	6.9	82X25
TAKSIM	QUICK ATTACK PEN	5W+2ALC	12.6	11.8	80	158	150	7.0	82X24
TIMO BOLL ALC CS	QUICK ATTACK PEN	5W+2ALC	11.8	10.3	84	157	150	5.7	82X24
TIMO BOLL CAF CS	QUICK ATTACK PEN	3W + 2CAF	10.6	10.4	79	161	150	5.7	82X23
TIMO BOLL ZLC CS	QUICK ATTACK PEN	5W+2ZLC	11.7	10.8	82	157	150	5.5	82X24
TIMO BOLL ZLF CS	QUICK ATTACK PEN	5W+2ZLF	10.5	9.4	81	157	150	5.4	82X24
YOSHIDA KAIH	QUICK ATTACK PEN	7W	11.1	9.3	91	161	150	6.8	82X25
ZHANG JIKE SUPER ZLC CS	QUICK ATTACK PEN	5W+2SZLC	12.3	11.1	84	161	150	5.6	82X24
<b>JAPANESE STYLE</b>									
CYPRESS G-MAX	TOP SPIN MINDED PEN	1W	13.6	12.9	93	163	135	10.0	92X20
CYPRESS T-MAX	TOP SPIN MINDED PEN	1W	12.4	12.5	96	163	135	10.0	92X20
CYPRESS V-MAX	TOP SPIN MINDED PEN	1W	12.8	13.5	94	163	135	10.0	92X20
GARAYDIA REVOLVER	COMBINATION PEN	3W+2ALC	10.5	8.2	57	161	141	6.4	86X16
HADRAW JPV-R	QUICK ATTACK PEN	5W	11.4	10.7	78	161	141	7.1	92X20
HADRAW JPV-S	TOP SPIN MINDED PEN	5W	11.4	10.7	77	163	135	7.1	92X20
HADRAW REVOLVER	COMBINATION PEN	5W	9.7	9.0	62	161	141	5.9	86X16



Matrix of BUTTERFLY blades comparing material **REACTION** and **VIBRATION**

### REACTION PROPERTY:

The Quantified Reaction of Blade: the bigger the number, the more the reaction.

REACTION PROPERTY



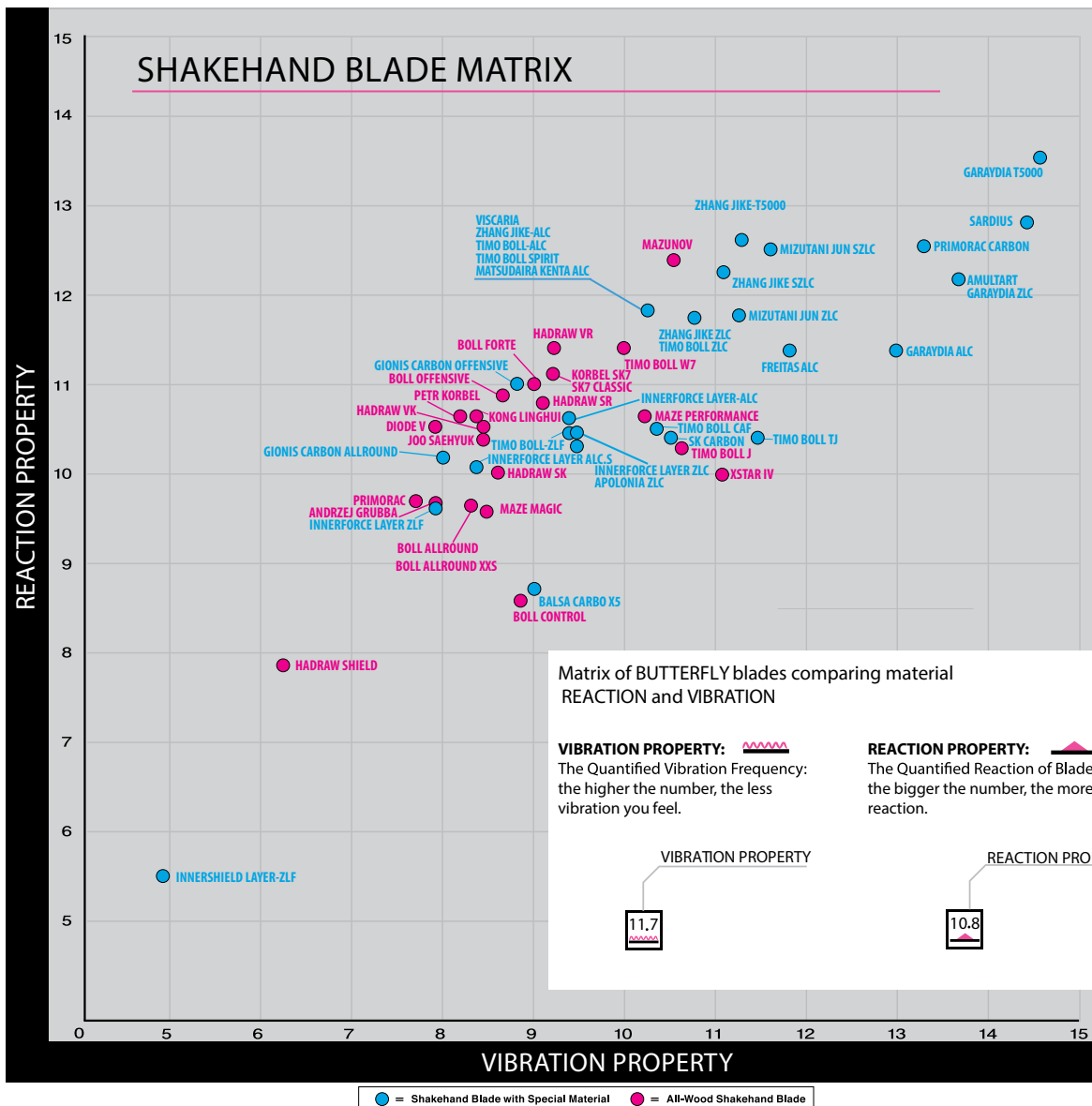
### VIBRATION PROPERTY:

The Quantified Vibration Frequency: the higher the number, the less vibration you feel.

VIBRATION PROPERTY



● = Penhold Blade with Special Material    ● = All-Wood Penhold Blade    ● = 1-Ply Hinoki



## PLAYING STYLE

### ATTACK SHAKE

Shakehands grip blade for power top spin attacking players.

### ALL-ROUND SHAKE

Shakehands grip blade for all-round players whose aim is balanced and controlled play.

### DEFENCE SHAKE

Shakehands grip blade exclusively for defensive players; less bounce enables a stable defence to be combined with a fierce attack.

### QUICK ATTACK PEN

Penhold grip blade suitable for attack and defence, enables fast reaction change from forehand and backhand.

### TOP SPIN MINDED PEN

Penhold grip blade for the powerful attacking top spin player.

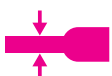
### COMBINATION PEN

Combination Penhold grip blade for players with different rubber surfaces on either side of the racket.

## BLADE DIMENSIONS



Width and length from the forefront to grip of the blade



Blade thickness of the shakehand and penhold blades



Grip thickness of shakehand and penhold blade

## REACTION PROPERTY



### REACTION

The quantified reaction of blade: the higher the number, the more reaction

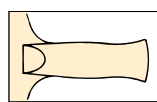
## VIBRATION PROPERTY



### VIBRATION

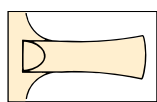
The quantified vibration frequency: the higher the number the less vibration you feel

## GRIP SHAPE



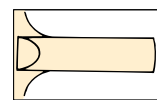
AN

**Anatomic:**  
Wave-shape grip fits the palm and provides stability



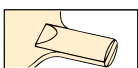
FL

**Flared:**  
Gravity center is closer to grip and the blade fits in the palm



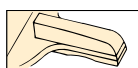
ST

**Straight:**  
The straight grip enables one to change the way of gripping according to the play



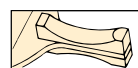
CS

Chinese Style Penhold



JP

Japanese Penhold



COMBINATION

Combination Penhold

## HEAD SHAPE (PENHOLD)

**S** – Angular Penhold Blade

**R** – Round-Angular Penhold Blade