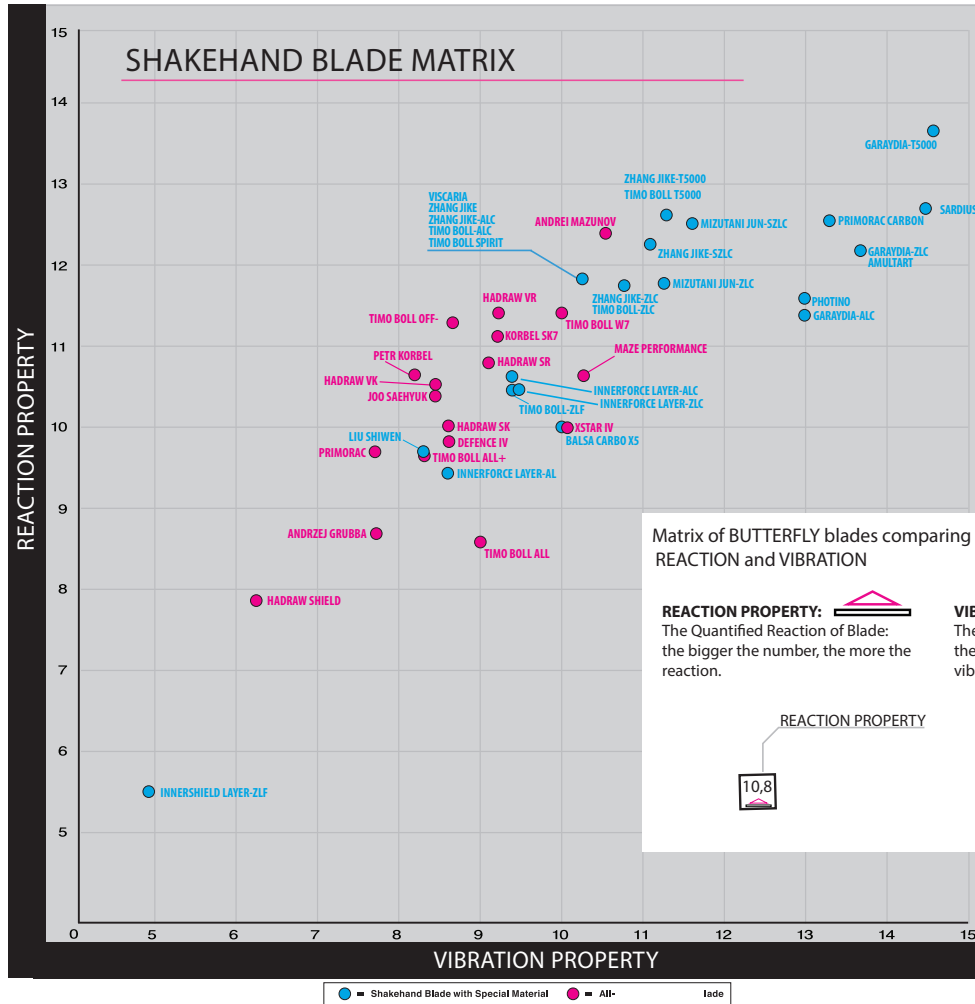
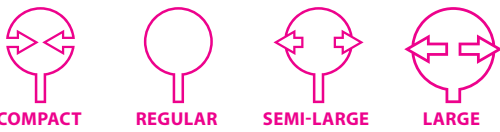


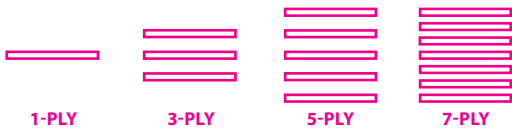
BUTTERFLY BLADE CHARACTERISTICS & CATEGORIES



BLADE SIZE



BLADE PLY



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

GRIP SHAPE



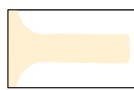
Anatomic: Wave-shape grip fits the palm and provides stability

AN



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

FL



Straight: The straight grip enables to change a way of grip according to the play

ST



CS
Chinese Penhold Blade



JP
Japanese Penhold



COMBINATION
Combination Penhold

PLAYING STYLE

ATTACK SHAKE

Shakehands grip blade for power top spin attacking players.

ALL-AROUND SHAKE

Shakehands grip blade for all-around 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.

REACTION PROPERTY



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

VIBRATION PROPERTY



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

HEAD SHAPE (PENHOLD)

S - Angular Penhold Blade

R - Round-Angular Penhold Blade

BUTTERFLY BLADE SPECIFICATION CHART

BLADE	PLIES	REACTION	VIBRATION	WEIGHT (G)	BLADE DIMS (MM)		HEAD THICKNESS (MM)	HANDLE DIMS (MM)		
					AVG	H		W	AN	FL
Amulart	3W+2ZLC	12.2	13.7	86	157	150	7.1	X	100x25	X
Andrzej Grubba	5W	8.7	7.8	85	158	151	5.5	100x25	100x25	100x25
Balsa Carbo X5	3W+2T5000	10	10	74	159	150	7	100x25	100x25	100x25
Defence IV	3W	9.8	8.6	92	166	155	6.4	X	100x24	100x23
Garaydia ALC	3W+2ALC	11.4	13	83	157	150	6.9	100x24	100x24	100x23
Garaydia T5000	3W+2T5000	13.6	14.5	91	157	150	7.2	100x25	100x25	100x23
Garaydia ZLC	3W+2ZLC	12.2	13.7	84	157	150	7.1	100x25	100x25	100x23
Hadraw Shield	5W	7.9	6.3	96	166	155	5.3	X	100x24	100x23
Hadraw SK	7W	10	8.6	77	157	150	6.4	100x24	100x24	100x22
Hadraw SR	7W	10.8	9.1	91	157	150	6.6	100x24	100x24	100x23
Hadraw VK	5W	10.5	8.4	79	157	150	5.7	100x24	100x24	100x23
Hadraw VR	5W	11.4	9.3	87	157	150	5.9	100x25	100x25	100x23
Innerforce Layer AL	5W+2AL	9.4	8.6	79	157	150	5.9	100x25	100x25	100x23
Innerforce Layer ALC	5W+2ALC	10.7	9.4	86	157	150	6	100x25	100x25	100x23
Innerforce Layer ZLC	5W+2ZLC	10.5	9.5	87	157	150	5.7	100x24	100x24	100x23
Innershield Layer ZLF	5W+2ZLF	5.5	4.9	86	166	155	5.1	X	100x24	100x23
Joo Saehyuk	5W	10.4	8.5	99	165	156	6	X	100x24	100 x23
Korbel SK7	7W	11.1	9.3	95	157	150	6.8	X	100x24	X
Liu Shiwen	5W+2ZLF	9.7	8.3	86	158	152	5.6	100x24	100x24	100x23
Maze Performance	5W	10.6	10.2	78	157	150	6.7	X	100x24	X
Mazunov	5W	12.4	10.5	103	158	152	6.7	X	100x25	X
Mizutani Jun Super ZLC	5W+2SZLC	12.5	11.6	91	157	150	5.8	100x24	100x24	100x22
Mizutani Jun ZLC	5W+2ZLC	11.8	11.2	90	157	150	5.7	100x24	100x24	100x22
Petr Korbel	5W	10.6	8.2	83	158	152	5.9	X	100x24	X
Photino	3W+2ZLF	11.5	13.1	85	157	150	7	X	100x24	X
Primorac	5W	9.7	7.6	86	157	150	5.5	X	100x25	X
Primorac Carbon	3W+2T5000	12.5	13.3	87	157	150	7	X	100x25	X
Sardius	3W+2T5000	12.8	14.4	90	158	152	7.1	X	100x25	X
Timo Boll ALC	5W+2ALC	11.8	10.3	83	157	150	5.8	100x24	100x24	100x22
Timo Boll ALL	5W	8.6	9	85	158	150	5.7	X	100x25	X
Timo Boll ALL+	5W	9.6	8.3	85	158	150	5.5	X	100x25	X
Timo Boll OFF-	5W	11.3	8.7	85	158	150	5.9	X	100x25	100x25
Timo Boll Spirit	5W+2ALC	11.8	10.3	88	157	150	5.8	X	100x24	100x22
Timo Boll T5000	5W+2T5000	12.6	11.3	89	157	150	5.6	X	100x24	X
Timo Boll W7	7W	11.4	10	94	157	150	6.8	100x24	100x24	100x22
Timo Boll ZLC	5W+2ZLC	11.7	10.8	85	157	150	5.5	X	100x24	X
Timo Boll ZLF	5W+2ZLF	10.5	9.4	83	157	150	5.4	X	100x24	X
Viscaria	5W+2ALC	11.8	10.3	94	157	150	5.8	X	100x25	X
XStar IV	5W	10	10.1	76	154	148	6.1	X	102x24	X
Zhang Jike	5W+2ALC	11.8	10.3	89	157	150	5.8	X	100x25	X
Zhang Jike ALC	5W+2ALC	11.8	10.3	88	157	150	5.8	X	100x25	X
Zhang Jike Super ZLC	5W+2SZLC	12.3	11.1	89	157	150	5.6	X	100x25	100x23
Zhang Jike T5000	5W+2T5000	12.6	11.3	91	157	150	5.6	X	100x25	X
Zhang jike ZLC	5W+2ZLC	11.7	10.8	86	157	150	5.5	X	100x25	X



BUTTERFLY RPB EXPLAINED

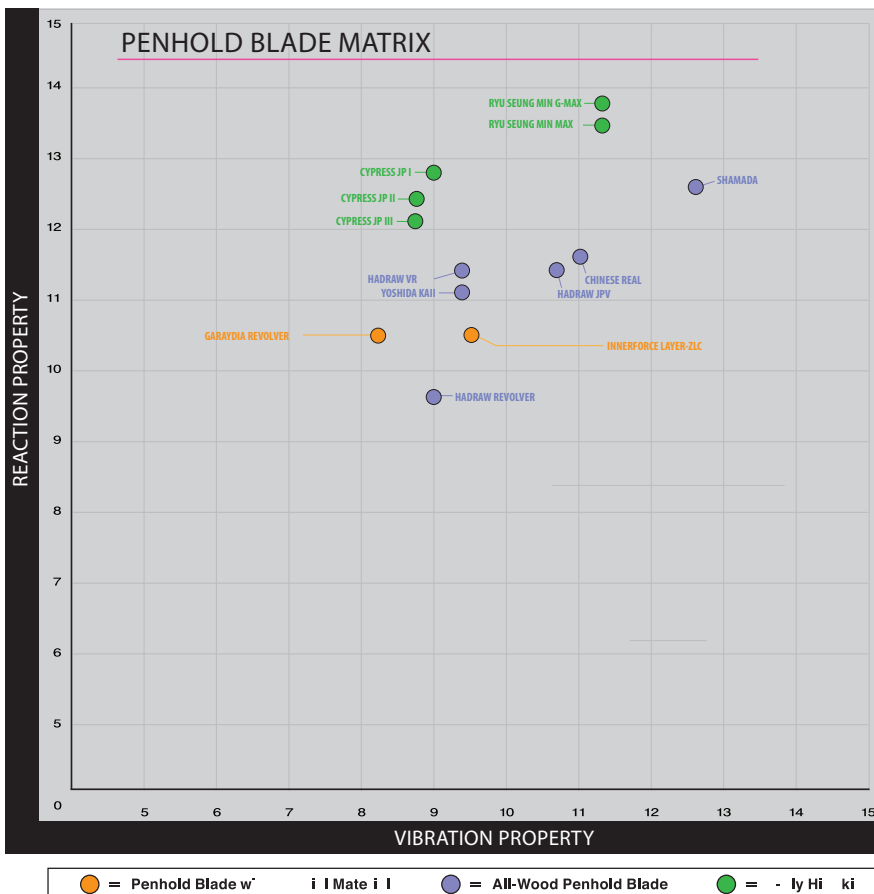
Conventional Penhold players use the same racket side to hit forehand and backhand. This playing style maximizes the forehand performance giving the ability to swing freely for strong attacks. However the grip puts the backhand in an awkward position forcing players to mainly punch and block. This style requires fast footwork and balance.

Reverse Penhold backhand is a newer technique in which the ball is struck on the opposite side of the

forehand. This increases the range of motion giving the ability to use much more wrist snap. Chinese style players are able to produce strong topspin attacks from both wings. The Reverse Penhold playing style allows for more dynamic offense. Revolver Japanese Style Penhold rackets allow you to put two sheets of rubber on a Japanese style blade. It has cork handles on both sides of the blade. The cork backing is cut flat on both sides. This gives Japanese style players the ability to have two different types of rubber for deception.

BUTTERFLY PENHOLD SPECIFICATION CHART

CHINESE STYLE BLADE	PLIES	REACTION	VIBRATION	Weight (G)	BLADE DIMENSIONS (MM)		HEAD THICKNESS (MM)	HANDLE DIMENSIONS (MM)
					H	W		
Chinese Real	5W	11.6	11.0	86	158	150	7.7	82x24
Hadraw VR	5W	11.4	9.3	91	161	150	5.9	82x24
Innerforce Layer ZLC	5W+2ZLC	10.5	9.5	85	161	150	5.7	82x24
Shamada	5W	12.6	12.6	86	160	150	7.5	80x23
Yoshida Kaii	7W	11.1	9.3	93	161	150	6.8	82x25
JAPANESE STYLE BLADE	PLIES	REACTION	VIBRATION	Weight (G)	BLADE DIMENSIONS (MM)		HEAD THICKNESS (MM)	HANDLE DIMENSIONS (MM)
					H	W		
Cypress JP III-S	1W	12.1	8.8	85	163	135	8.7	92x20
Cypress JP II-S	1W	12.4	8.8	87	163	135	9.0	92x20
Cypress JP I-S	1W	12.8	9.0	89	163	135	9.3	92x20
Garaydia Revolver-R	3W+2ALC	10.5	8.2	64	161	141	6.4	86x16
Hadraw JPV-R	5W	11.4	10.7	79	161	141	7.1	92x20
Hadraw JPV-S	5W	11.4	10.7	79	163	135	7.1	92x20
Hadraw Revolver-R	5W	9.7	9.0	66	161	141	5.9	86x16
Ryu Seung Min G-Max	1W	13.8	11.3	89	163	135	10.0	92x20
Ryu Seung Min Max	1W	13.5	11.3	99	163	135	10.0	92x20
Senkoh Special 90	1W	12.4	8.8	97	163	135	9.0	92x20



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

10,8

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

VIBRATION PROPERTY

11,7