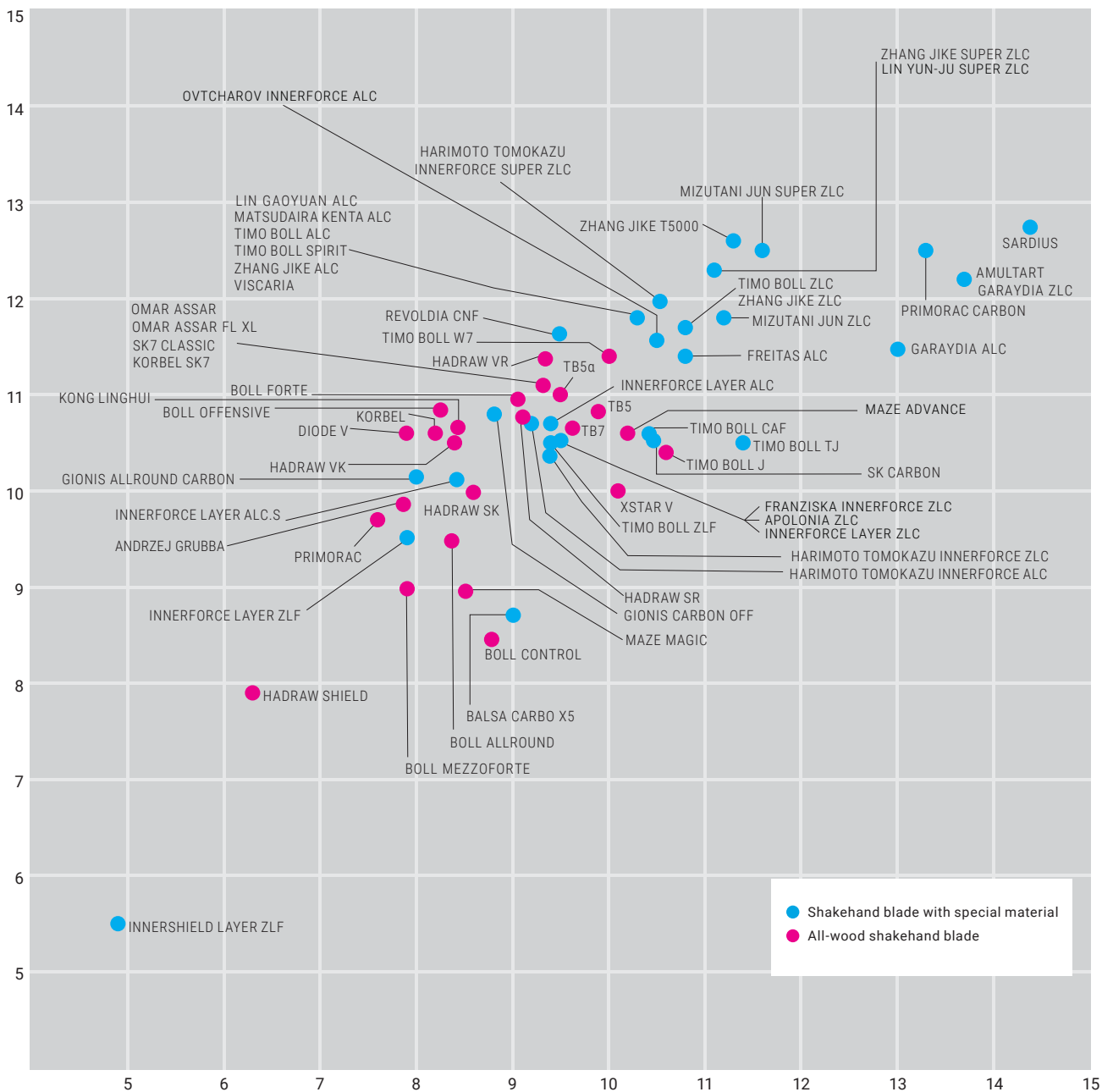


BUTTERFLY BLADE MATRIX

REACTION PROPERTY

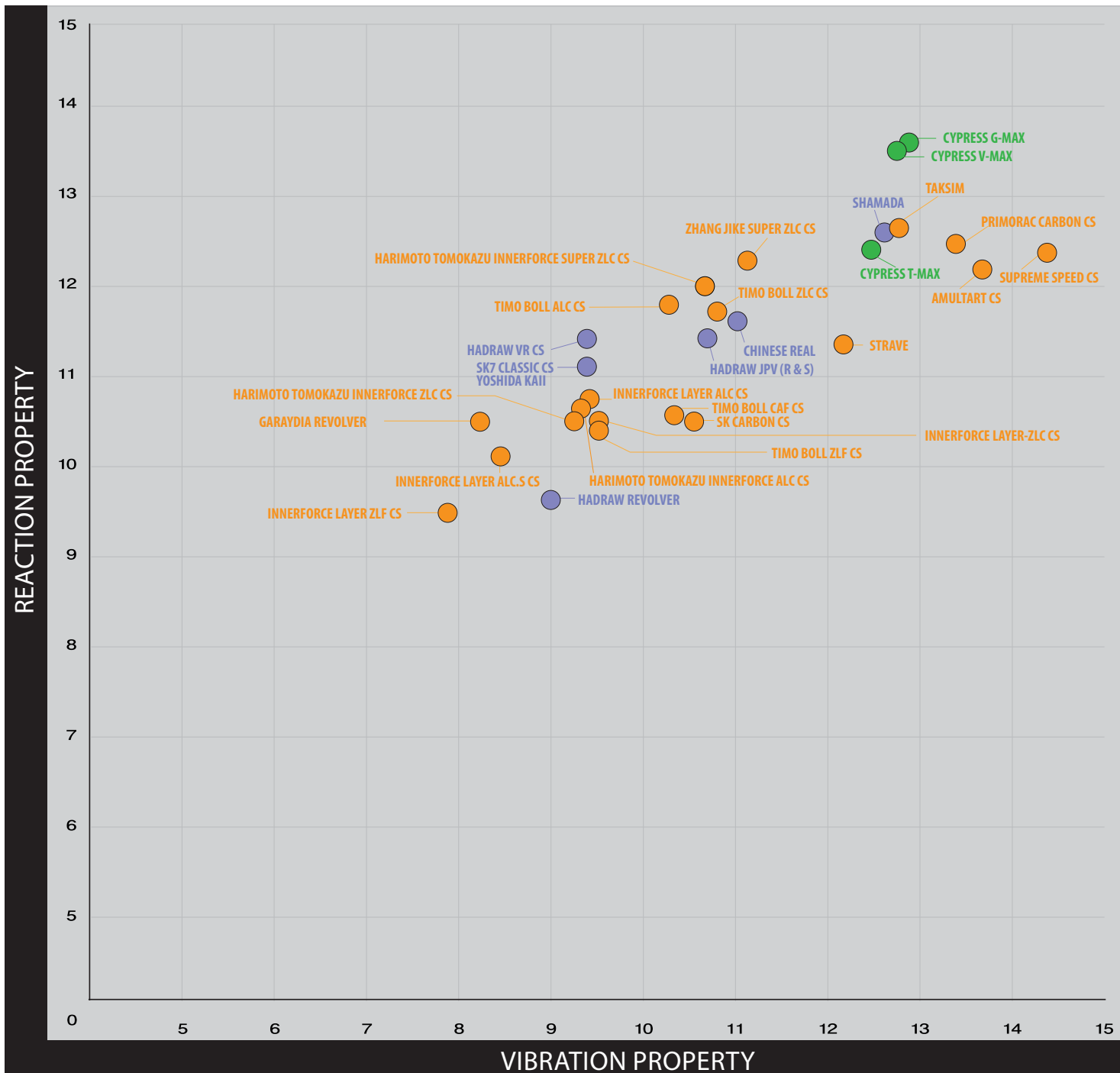



VIBRATION PROPERTY



BLADE	STYLE	PLIES	REACTION	VIBRATION	WEIGHT (g/avg.)	HEAD DIMENSIONS		HEAD THICKNESS (mm)	HANDLE DIMENSIONS (mm)		
						Height (mm)	Width (mm)		AN	FL	SI/ST
AMULTART	ATTACK	3W+2ZLC	12.2	13.7	86	157	150	7.1	X	100x25	100X24 (SI)
ANDRZEJ GRUBBA	ALL-ROUND	5W	9.7	7.9	85	159	151	5.7	100x25	100x25	100x25
APOLONIA ZLC	ATTACK	5W+2ZLC	10.5	9.5	89	157	150	5.7	100x24	100x24	100x23
BALSA CARBO X5	ATTACK	3W+2C	8.7	9.0	80	159	150	6.7	X	X	100x25
BOLL ALLROUND	ALL-ROUND	5W	9.6	8.3	85	158	150	5.8	100x25	100x25	100x25
BOLL ALLROUND XXS	ALL-ROUND	5W	9.6	8.3	85	153	146	5.5	X	97x22	X
BOLL CONTROL	ALL-ROUND	5W	8.6	8.8	85	158	150	5.9	100x25	100x25	100x25
BOLL FORTE	ATTACK	5W	11.0	9.0	90	158	150	6.0	100x25	100x25	100x25
BOLL MEZZOFORTE	ALL-ROUND	5W	9.0	7.9	77	158	152	5.0	100x23	100x24	100x23
BOLL OFFENSIVE	ATTACK	5W	10.9	8.7	90	158	150	6.0	100x25	100x25	100x25
DIODE V	DEFENSE	5W	10.6	7.9	97	165	156	5.7	X	100x24	100x23
FRANZISKA INNERFORCE ZLC	ATTACK	5W+2ZLC	10.5	9.5	88	157	150	5.7	100x24	100x24	100x23
FREITAS ALC	ATTACK	5W+2ALC	11.4	10.8	84	157	150	6.0	100x25	100x25	100x23
GARAYDIA ALC	ATTACK	3W+2ALC	11.4	13.0	82	157	150	6.9	100x24	X	100x23
GARAYDIA ZLC	ATTACK	3W+2ZLC	12.2	13.7	86	157	150	7.1	100x25	100x25	X
GIONIS CARBON ALLROUND	ATTACK	5W+2C	10.2	8.0	85	159	152	5.7	100x25	100x25	100x25
GIONIS CARBON OFFENSIVE	ATTACK	5W+2C	11.0	8.8	90	159	152	6.2	100x25	100x25	100x25
HARIMOTO INNERFORCE ALC	ATTACK	5W+2ALC	10.7	9.2	88	158	152	6.0	100x25	100x25	100x23
HARIMOTO INNERFORCE ZLC	ATTACK	5W+2ZLC	10.5	9.3	89	158	152	5.7	100x24	100x24	100x23
HARIMOTO INNERFORCE SUPER ZLC	ATTACK	5W+2SZLC	12.0	10.5	90	158	152	6.2	100x25	100x25	100x23
HADRAW SHIELD	DEFENSE	5W	7.9	6.3	92	166	155	5.3	X	100x24	100x23
HADRAW SK	ATTACK	7W	10.0	8.6	85	157	150	6.4	100x24	100x24	100x22
HADRAW SR	ATTACK	7W	10.8	9.1	92	157	150	6.6	100x24	100x24	100x23
HADRAW VK	ATTACK	5W	10.5	8.4	82	157	150	5.7	100x24	100x24	100x23
HADRAW VR	ATTACK	5W	11.4	9.3	88	157	150	5.9	100x25	100x25	100x23
INNERFORCE LAYER ALC	ATTACK	5W+2ALC	10.7	9.4	85	157	150	6.0	100x25	100x25	100x23
INNERFORCE LAYER ALC.S	ATTACK	5W+2ALC	10.1	8.4	88	157	150	5.5	100x24	100x24	100x23
INNERFORCE LAYER ZLC	ATTACK	5W+2ZLC	10.5	9.5	85	157	150	5.7	100x24	100x24	100x23
INNERFORCE LAYER ZLF	ATTACK	5W+2ZLF	9.6	7.9	86	157	150	5.3	100x24	100x24	100x22
INNERSHIELD LAYER ZLF	DEFENSE	5W+2ZLF	5.5	4.9	84	166	155	5.1	X	100x24	100x23
KONG LINGHUI	ATTACK	5W	10.6	8.4	90	154	148	5.5	X	100x24	X
KORBEL SK7	ATTACK	7W	11.1	9.3	92	157	150	6.8	100x24	100x24	100x23
LIN GAOYUAN ALC	ATTACK	5W+2AC	11.8	10.3	87	157	150	5.7	X	101x24	100x22
LIN YUN-JU SUPER ZLC	ATTACK	5W+2ZLC	12.3	11.1	91	157	150	5.6	100x24	100x25	100x23
MATSUDAIRA KENTA ALC	ATTACK	5W+2ALC	11.8	10.3	85	157	150	5.8	X	100x23	X
MAZE ADVANCE	ATTACK	5W	10.6	10.2	82	157	150	6.7	X	100x24	X
MAZE MAGIC	ALL-ROUND	5W	9.5	8.5	85	159	151	5.9	100x24	100x24	100x24
MIZUTANI JUN SUPER ZLC	ATTACK	5W+2SZLC	12.5	11.6	90	157	150	5.8	100x24	100x24	100x22
MIZUTANI JUN ZLC	ATTACK	5W+2ZLC	11.8	11.2	85	157	150	5.7	100x24	100x24	100x22
OMAR ASSAR	ATTACK	5W+2KC	11.1	9.3	85	157	150	5.8	100x25	100x25	100x23
OMAR ASSAR FL XL	ATTACK	5W+2KC	11.1	9.3	92	157	150	5.8	X	104x25	X
OVTCHAROV INNERFORCE ALC	ATTACK	5W+2ALC	11.7	10.5	91	158	152	6.2	100x25	100x25	100x23
PETR KORBEL	ATTACK	5W	10.6	8.2	90	158	152	5.9	X	100x24	100x23
PRIMORAC	ATTACK	5W	9.7	7.6	84	157	150	5.5	X	100x25	X
PRIMORAC CARBON	ATTACK	3W+2T5000	12.5	13.3	89	157	150	7.0	X	100x24	100x23
REVOLDIA CNF	ATTACK	5W+2CNF	11.7	9.5	90	157	150	5.7	X	100x25	X
SARDIUS	ATTACK	3W+2T5000	12.8	14.4	92	158	152	7.2	X	100x25	X
SK CARBON	ATTACK	3W+2T5000	10.5	10.5	76	157	150	5.2	X	100x24	100x23
SK7 CLASSIC	ATTACK	7W	11.1	9.3	90	157	150	6.8	X	100x25	100x23
TB5 ALPHA	ATTACK	5W	11.0	9.5	88	158	152	6.4	X	100x26	X
TB5	ATTACK	5W	10.8	9.9	86	154	148	6.4	X	102x26	X
TB7	ATTACK	7W	10.6	9.6	84	154	148	6.3	X	102x25	X
TIMO BOLL ALC	ATTACK	5W+2ALC	11.8	10.3	84	157	150	5.8	100x24	100x24	100x22
TIMO BOLL CAF	ATTACK	3W+2ALC	10.6	10.4	82	157	150	5.7	X	100x24	100x22
TIMO BOLL J	ATTACK	5W	10.4	10.6	70	152	144	6.1	X	92x22	X
TIMO BOLL TJ	ATTACK	3W + 2T5000	10.5	11.4	70	154	146	5.2	X	95x21	X
TIMO BOLL SPIRIT	ATTACK	5W+2ALC	11.8	10.3	87	157	150	5.8	100x24	100x24	100x22
TIMO BOLL W7	ATTACK	7W	11.4	10.0	94	157	150	6.8	100x24	X	X
TIMO BOLL ZLC	ATTACK	5W +2ZLC	11.7	10.8	84	157	150	5.5	100x24	100x24	100x22
TIMO BOLL ZLF	ATTACK	5W +2ZLF	10.5	9.4	82	157	150	5.4	100x24	100x24	100x22
VISCARIA	ATTACK	5W+2ALC	11.8	10.3	85	157	150	5.8	X	100x25	X
X-STAR V	ATTACK	5W	10.0	8.2	83	158	152	5.6	X	102x24	X
ZHANG JIKE ALC	ATTACK	5W+2ALC	11.8	10.3	86	157	150	5.8	102x24	100x25	100x23
ZHANG JIKE SUPER ZLC	ATTACK	5W+2SZLC	12.3	11.1	87	157	150	5.6	102x24	100x25	100x23
ZHANG JIKE T-5000	ATTACK	5W+2T5000	12.6	11.3	91	157	150	5.5	102x25	100x25	100x24
ZHANG JIKE ZLC	ATTACK	5W+2ZLC	11.7	10.8	86	157	150	5.5	102x24	100x25	100x23

PENHOLD BLADE MATRIX



● = Penhold Blade with Special Material

● = All-wood Penhold Blade

● = 1-Ply Hinoki

BUTTERFLY PENHOLD

SPECIFICATION CHART

BLADE	PLAYING STYLES	PLIES	REACTION	VIBRATION	WEIGHT (Grams) Avg.	BLADE DIMS (mm)		HEAD THICKNESS (mm)	HANDLE DIMS (mm)
						Height	Width		
CHINESE STYLE									
AMULTART - CS	QUICK ATTACK	3W+2ZLC	12.2	13.7	84	161	150	7.1	82x25
CHINESE REAL - CS	QUICK ATTACK	5W	11.6	11.0	77	158	150	7.7	82x24
HADRAW VR - CS	QUICK ATTACK	5W	11.4	9.3	85	161	150	5.9	82x24
HARIMOTO TOMOKAZU INNERFORCE ALC - CS	QUICK ATTACK	5W+2ALC	10.7	9.4	88	161	150	6	82X24
HARIMOTO TOMOKAZU INNERFORCE ZLC - CS	QUICK ATTACK	5W+2ZLC	10.5	9.3	89	158	152	5.7	82X24
HARIMOTO TOMOKAZU INNERFORCE SUPER ZLC - CS	QUICK ATTACK	5W+2SALC	12.0	10.7	90	158	152	6.2	82X24
INNERFORCE LAYER ALC - CS	QUICK ATTACK	5W+2ALC	10.7	9.4	85	161	150	6.0	82x24
INNERFORCE LAYER ALC S - CS	QUICK ATTACK	5W+2ALC	10.1	8.4	88	161	150	5.5	82x24
INNERFORCE LAYER ZLC - CS	QUICK ATTACK	5W+2ZLC	10.5	9.5	83	161	150	5.7	82x24
INNERFORCE LAYER ZLF - CS	QUICK ATTACK	5W+2ZLF	9.6	7.9	86	161	150	5.3	82x23
PRIMORAC CARBON - CS	QUICK ATTACK	3W+2TS000	12.5	13.3	84	161	150	6.9	82x25
SK CARBON - CS	QUICK ATTACK	3W+2TS000	10.5	10.5	76	161	150	5.2	82x24
SK7 CLASSIC - CS	QUICK ATTACK	7W	11.1	9.3	91	161	150	6.8	82x24
SHAMADA - CS	QUICK ATTACK	5W	12.6	12.6	84	160	150	7.5	80x23
STRAVE - CS	QUICK ATTACK	3W+2TS000	11.4	12.2	74	158	150	6.7	82x23
SUPREME SPEED - CS	QUICK ATTACK	3W+2ALC	12.4	14.3	79	157	150	6.9	82x25
TAKSIM - CS	QUICK ATTACK	5W+2ALC	12.6	11.8	80	158	150	7.0	82x24
TIMO BOLL ALC - CS	QUICK ATTACK	5W+2ALC	11.8	10.3	84	157	150	5.7	82x24
TIMO BOLL CAF - CS	QUICK ATTACK	3W + 2CAF	10.6	10.4	79	161	150	5.7	82X23
TIMO BOLL ZLC - CS	QUICK ATTACK	5W+2ZLC	11.7	10.8	82	157	150	5.5	82x24
TIMO BOLL ZLF - CS	QUICK ATTACK	5W+2ZLF	10.5	9.4	81	157	150	5.4	82x24
YOSHIDA KAI - CS	QUICK ATTACK	7W	11.1	9.3	91	161	150	6.8	82x25
ZHANG JIKE SUPER ZLC - CS	QUICK ATTACK	5W+2SZLC	12.3	11.1	84	161	150	5.6	82x24
JAPANESE STYLE									
CYPRESS G-MAX	TOPSPIN-MINDED	1W	13.6	12.9	93	163	135	10.0	92x20
CYPRESS T-MAX	TOPSPIN-MINDED	1W	12.4	12.5	96	163	135	10.0	92x20
CYPRESS V-MAX	TOPSPIN-MINDED	1W	12.8	13.5	94	163	135	10.0	92x20
GARAYDIA REVOLVER	COMBINATION	3W+2ALC	10.5	8.2	57	161	141	6.4	86x16
HADRAW JPV-R	QUICK ATTACK	5W	11.4	10.7	78	161	141	7.1	92x20
HADRAW JPV-S	TOPSPIN-MINDED	5W	11.4	10.7	77	163	135	7.1	92x20
HADRAW REVOLVER	COMBINATION	5W	9.7	9.0	62	161	141	5.9	86x16